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ABSTRACT

This study synthesizes current research regarding the nature of the achievement gap in Washington State, root causes and conditions perpetuating the gap, and strategies for closing the gap. It emphasizes the gap between white students and students of color and between students from more affluent backgrounds and their lower-income counterparts. Data come from the Washington Assessment of Student Learning, Iowa Tests of Basic Skills, and Iowa Tests of Educational Development. Results indicate that the large gap has remained relatively unchanged nationwide over the past decade. Similarly, Washington assessment data show a relatively large and unchanged achievement gap. White and Asian student performances are relatively similar, far exceeding the scores of black, Hispanic, and American Indian students. In mathematics, Asian students usually outperform white students. Strategies for closing the gap include changed beliefs and attitudes of parents, families, students, and teachers; cultural responsiveness; greater opportunities to learn; effective instruction; and more family and community involvement. Six appendices present test score results by race/ethnicity and socioeconomic status, scores needed to meet future goals, characteristics of high performing schools, current activities to close the achievement gap, and case studies.(Contains 44 references.) (SM)

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Addressing the Achievement Gap

A Challenge for Washington State Educators

November 2002

Dr. Terry Bergeson
State Superintendent of
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Addressing the Achievement Gap

A Challenge for Washington State Educators

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November 2002

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Abbreviations

AYP	adequate yearly progress
EALRs	Essential Academic Learning Requirements
ITBS	Iowa Tests of Basic Skills
ITED	Iowa Tests of Educational Development
NAEP	National Assessment of Educational Progress
OSPI	Office of Superintendent of Public Instruction
WASL	Washington Assessment of Student Learning

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Executive Summary

Background

The increased focus on high academic standards for all students has brought a heightened awareness of the disparities in student achievement as measured on various statewide assessments. This achievement gap has become a concern of parents, educators, legislators, and community members. The Office of Superintendent of Public Instruction (OSPI) and several school districts in Washington are taking action to remove the barriers to achievement.

Publishing this report is one step OSPI is taking to help address the achievement gap. The goal of this study is to review and synthesize the current body of research in order to create a common understanding of the issues that must be addressed. OSPI research staff used the following questions to guide their work:

- What is the nature of the achievement gap in Washington?
- What does the literature suggest are root causes and conditions that tend to perpetuate the gap?
- What promising steps can be taken toward closing the gap?

While the achievement gap can be defined in different ways, this report focuses on the gap between white students and students of color and between students from more affluent backgrounds and their lower-income counterparts. Disaggregated results from the Washington Assessment of Student Learning (WASL), Iowa Tests of Basic Skills (ITBS) and Iowa Tests of Educational Development (ITED) serve as the basis for most of the analyses.

The report has some limitations. Using broad categories such as race/ethnicity masks the ranges of performance that exist among particular groups and can potentially perpetuate stereotypes. In addition, other outcomes besides test scores can be used to measure the gap.

Size of the Gap

Nationwide a large gap has remained relatively unchanged over the past decade. While substantial progress was made in the 1970s and 1980s toward closing the achievement gap, since 1992 the gap in performance between white and other students on the National Assessment of Educational Progress (NAEP) has remained about the same. Other national indicators, such as college admissions tests, reveal a worrisome difference between minority students and non-minority students.

Mirroring the national trend of the past decade, Washington assessment data show a relatively large and unchanged achievement gap. White and Asian student performance are relatively similar and far exceed the scores of Black, Hispanic, and American Indian students. In mathematics, Asian students usually outperform white students.

A closer look at the test scores of minority students shows significant improvement has taken place. In some cases, these students have made gains when white students have not. However, the gap remains relatively unchanged because the average rate of improvement among minorities has either been slower or not much better than that of white and Asian students. To reduce and ultimately close the gap, minority students will need to accelerate achievement at a faster rate in the future.

Root Causes and Perpetuating Conditions

There are two overall reasons why the achievement gap persists. First, research has found that factors outside the classroom—such as economic, family, and personal characteristics—have a strong influence on achievement. Students of color often come from lower-income families, and some of those students may also be second-language learners. Student habits and aspirations can influence achievement as well. Survey data collected from the 2002 ITBS show that Black, Hispanic, and American Indian students watch more television, study fewer hours, and aspire to lower educational goals than white and Asian students. Psychological factors, such as "acting white" or the internalization of inferior status, can also play a role in academic achievement.

Second, research has identified various school-related factors that can perpetuate the gap. Recent studies have challenged the assumption that schools and educators have little or no impact on how well students achieve. These studies have found that low-income and minority students encounter less opportunity to learn, inadequate instruction and support, and lower expectations from their schools and teachers. Research has also pointed out that schools are more reflective of white, middle-class society. This can lead to a disconnect between students who come from different cultures and family conditions and the traditional school structure and expectations.

Strategies for Closing the Gap

The research and professional literature reveal many strategies for reducing and ultimately eliminating the achievement gap.

Changed beliefs and attitudes The importance of beliefs and attitudes of teachers, parents, families, and students has been well documented. Genuine caring conveys a sense of value and worth to a student, which can lead to increased learning. Teacher expectations of themselves and their students also play a large role in how well students perform.

Cultural responsiveness Learning begins with the learners' frame of reference. Teachers provide their instruction from their personal cultural framework, and students learn from within the context of their own experience. Research emphasizes the importance of honoring students and their heritages. Professional development for teachers needs to include culturally responsive content and skills.

Greater opportunities to learn Schools can provide greater opportunities for students to learn by offering extended academic time (e.g., all-day kindergarten, before or after-school classes, summer school), using rigorous and challenging courses as the default curriculum, and expanding access in enriched and varied programs.

Effective instruction The research literature specifically describes instructional practices that relegate minority or low-income students to lower-level content rather than teaching thinking, understanding, and application skills. The "new science of learning" emphasizes the importance of learning with understanding. Such instruction has been shown to dramatically improve the performance of traditionally under-achieving students.

More family and community involvement The notion of parental involvement extends beyond attendance at school functions or field trips. When parents encourage learning at home, express high but reasonable expectations, and support their children's education, low-income and minority students get better grades and test scores. The community can support extended educational opportunities for lower-achieving students. Close cooperation between schools, parents, and the community is one of the keys to closing the achievement gap.

Implications

The strategies in this report suggest approaches classroom teachers, school staff, and parents can use to eliminate the achievement gap. To successfully close the gap, however, other actions need to occur simultaneously at the state and district levels. The state and districts have the responsibility to make systemic changes in policy, procedures, and allocation of resources. School staff, parents, and communities can take immediate action to change practices to improve instruction, opportunities to learn, and the educational climate of schools. All stakeholders will need to reflect and learn more about the root causes of the achievement gap and the potential solutions.

At the district and state level, eliminating the achievement gap must be considered part of each educational institution's vision and focus. A greater focus on collaboration is necessary among stakeholders. Teachers must be given the opportunity to learn about cultural responsiveness and effective instructional strategies to help traditionally under-achieving students. Districts need to make sure highly-qualified teachers are working with their students.

School staff, parents, and community members need to experience some changes as well. All need to share the expectation that all students—regardless of color or income level—can achieve at high levels and should be participating in tough, challenging coursework. Schools need to rethink their instructional approaches, resource allocation models, and professional development activities. Data should be used more effectively. In addition, outreach programs that effectively engage parents and the community must be implemented.

The achievement gap has been present for many years, and it is time to close it. The mandates of the federal Elementary and Secondary Education Act of 2001 (ESEA) regarding identifying and eliminating disparities in student achievement and a heightened awareness of the achievement gap within the educational community will help the whole country move to solutions. Closing the gap will not be an easy task, but it is necessary, not only for the individuals involved, but for our communities, state and nation.

Introduction

Concerns about the disparity in achievement scores among groups of students in Washington have increased in the wake of standards-based reform. The Office of Superintendent of Public Instruction (OSPI) as well as various school districts and educational organizations have identified the achievement gap as an issue to address. The topic is also receiving national attention. To help frame the concept and to explore potential actions, this paper addresses three questions:

1. What is the nature of the achievement gap in Washington?
2. What does the literature suggest are root causes and conditions that tend to perpetuate the gap?
3. What promising steps can be taken toward closing the gap?

This paper, based on a review of the research and professional literature, is organized into five chapters: Introduction, Size of the Gap, Root Causes and Perpetuating Conditions, Strategies for Closing the Gap, and Implications. This first chapter defines and briefly illustrates the concept of the achievement gap. The chapter also argues for urgency in taking positive steps, individually and collectively, to reduce and ultimately eliminate the gap. Cautions and limitations surrounding this discussion are also summarized.

Definition

The achievement gap can be defined in many ways. The gap is usually defined in terms of the difference in academic performance on tests among identified groups. For example, the differences may be for gender, race/ethnicity, or socioeconomic groups. The gap can also be defined as the difference between how a group performs compared to what is expected of it. The federal government now expects all students in different groups (e.g., low socioeconomic, special education, limited English proficiency, and race/ethnicity) to be proficient in reading and mathematics by 2014.

This paper focuses on the achievement gap by racial/ethnic group and socioeconomic status. More specifically, the gap is defined as the disparity in test results between white students and students of color, and between students who receive a free or reduced-price lunch and those who do not.

The achievement gap described in this paper is derived from disaggregated test scores from the Washington Assessment of Student Learning (WASL), the Iowa Tests of Basic Skills (ITBS), and the Iowa Tests of Educational Development (ITED). Other outcome measures, such as dropout data and results from other tests, are included when available.

Context and Importance of the Issue

The standards movement has increased attention on disproportionality in achievement. In spite of various initiatives over the years, the gap remains. Many believe that in a free democratic society, such a disparity is unconscionable, both morally and economically. "No Child Left Behind," the Elementary and Secondary Education Act (ESEA) reauthorized in January 2002, has added political clout to a moral issue. The changing demographics in schools and the nation pose challenges to the public schools. Students of color, limited English proficiency, and who live in poverty or low-income families are the clientele of many classrooms today and will likely be in larger proportions in the future.

The standards movement calls for all students to learn to high standards the knowledge and skills that have been identified as essential for them to master. Thus, the standards movement has both identified learning targets and set the learning bar—identifying what students should know and be able to do as well as establishing "how good is good enough." The essence of educational reform is captured by the word "all." All students have a right to learn what they need to know and to be able to do in order to thrive in the world they live in. The critical challenge is to eliminate disparities among groups of children to ensure that, indeed, all learn that which has been identified as essential.

The term "achievement gap" masks deep and complex issues that are rooted in the culture of schooling and the social structures of the United States. Historically, public schools in America have not been expected to educate all students to high standards. Although public schools have been expected to serve society's needs in the past, the expectations have focused on some students and some level of skill attainment but not high levels of problem solving and application of advanced skills for all students. Grappling with the inequities and injustices that our society tends to perpetuate requires organizational and individual examination and reflection, followed by courageous actions to change the status quo across school systems.

Issues of the economic and political well being of the United States have been treated by other authors and are outside the scope of this paper. Obviously, closing the achievement gap will prepare more citizens of color to access the political system and to attain greater economic and social stability. The result will benefit the larger American community.

The growing percentage and number of young people of color will continue to pose challenges to traditional educational structures and routines. According to the 2000 Census data, nearly 3 in 10 people in the United States are minorities. Non-Hispanic whites comprise 69 percent of the population, down from 76 percent in 1990. Hispanics of any race make up 12.5 percent of the U.S. population. Among the non-Hispanic community, Blacks compose 12.1 percent of the total and Asians represent 3.6 percent. Native American Indians and Native Hawaiians combined comprise about 1 percent of the U.S. population. About 7 million people, or about 2.4 percent of the total population, reported they are of more than one race. (For the first time the Census offered the opportunity to mark more than one race.)

In Washington state, minorities comprise a growing percentage of both the overall population and the student population. According to the 2000 Census, about 21 percent of the total population statewide were racial or ethnic minorities. Hispanics made up 7.5 percent of the total state population; Asian and Pacific Islanders totaled 5.9 percent; Blacks totaled 3.2 percent; American Indians 1.6 percent; some people were another race or multi-racial. Among Washington's K–12 public school population, minorities represent a larger proportion of the student population than in the state as a whole and is increasing relative to the white student population: The percentage of minority students has grown from 17.9 percent in 1990 to 25.4 percent in 2001. This growth is partially due to the growing number of immigrants to the state (Washington Kids Count, 2002).

Minority students are more likely to live in families that have a low socio-economic status. The national poverty rate for Blacks, Hispanics, and American Indians is triple that of whites. Historically, the disparity in poverty rates between whites and people of color has been even larger. There are more people of color living in poverty than whites, despite the fact that whites represent 79 percent of the total U.S. population (U.S. Census Bureau, 2001).

The current school system is predominantly characterized by a white middle-class culture. As seen in Table 1, more than 90 percent of the principals and teachers in the state are white. Classified staff statewide are also mostly white. The current system is not likely to serve a diverse student population in the future much better than it has in the past without significant changes.

Table 1: Most Washington School Staff Are White (School Year 2000-01)

	Elementary Principals	Secondary Principals	Elementary Teachers	Secondary Teachers	Other Teachers	All Classified Staff	% of K-12 Student Enrollment
White	973	533	24,576	19,824	4,638	53,297	74.4%
Black	45	18	361	375	88	1,530	5.3%
Asian	30	13	629	411	160	1,759	7.3%
Hispanic	19	9	583	396	71	2,409	10.2%
American Indian	12	7	205	177	45	781	2.7%
Total	1,079	580	26,354	21,183	5,002	59,776	100%
% White	***90.2%***	***91.9%***	***93.3%***	***93.6%***	***92.7%***	***89.2%***	***74.4%***

Sources: Staff data from OSPI S-275 data for staff serving in all school districts. Enrollment data from OSPI website: http://www.k12.wa.us/dataadmin/EnrSum00.pdf

To close the achievement gap experienced by students of color and low socioeconomic background, the educational system will need to change. Addressing the achievement gap is both important and urgent, and understanding the depth of the problem and its potential causes are essential for taking action. This paper attempts to provide information on these issues.

Cautions and Limitations

The achievement gap discussed in this document and elsewhere refer to overall trends and averages. Such generalizations mask the ranges that exist within the groups and may perpetuate stereotypic thinking. Scores reported by school also are problematic because student performance varies within the school. Some students of color may perform well, and some white and Asian students may perform less well. In some schools, minority students as a whole perform better than white students (Kifer, 2002).

Data on achievement of Asian-American students illustrate the dangers of overgeneralization. Sometimes described as a "model minority," the Asian-American label hides the vast diversity among students. The term is used to represent 29 distinct subgroups (Siu, 1996, p. 12), so Asian Americans do not fit some monolithic profile. The "diversity in country of origin, language, socioeconomic status, educational background, and degree of acculturation makes it virtually impossible to make generalizations about contemporary Asian Americans" (p. 9). Although Asian students have aggregated test scores at levels similar to white students, many Asian students are not succeeding in school. Their individual circumstances and needs must be understood and met as much as students of other ethnic racial groups.

The same concern applies to other groups as well. Latino and Native Americans are also labels that represent widely diverse cultural and linguistic characteristics. Latino and Hispanic are terms that refer to language as well as culture and encompass distinct groups of people from Mexico, Central and South America, and Spain as well as native-born Americans who are descended from those nations. For American Indian and Alaska Natives, Lomawaima stated: "Native America is remarkably diverse, encompassing hundreds of communities with distinct languages, cultures, philosophies, and educational systems that defy easy generalization. Ideologically, I resist generalizations about American Indians because so many stereotypes rest on the mistaken assumption that all Indians are alike" (cited in St. Germaine, 2000). Similarly, the term "Black" or African-American refers to many different groups, including recent immigrants from Somalia and Ethiopia. For brevity's sake, in this report the terms "American Indian" and "Black" are used unless an author of cited research uses a different term (e.g., Native American or African-American).

Thus, aggregated averages by group, school, and district hide important data about the performance of students. States will be reporting disaggregated data to the federal government in compliance with ESEA, which requires reporting improved performance by ethnic racial group and by poverty level. However, judicious use of the data, with attention to the variations within groups as well as among groups, will still be required. Disaggregating test score data to the student level is important in insuring that all students are learning to high standards.

Other measures of school performance, such as graduation rates, dropout rates, number of disciplinary actions or degree of sanction, college attendance and completion, are also appropriate indicators for defining the nature of the achievement gap. In Washington, the dropout rate of students of color is double that of Asian and white students. Yet the lack of reliable and complete data on these indicators requires a reliance mainly on large-scale assessment information.

In addition to the cautions described above, there are other limitations to this document. Although an effort has been made to be thorough, this paper is not an exhaustive review of the literature because of space and time constraints. Educating students within each of the various racial and ethnic groups has generated a broad research literature. Admittedly, this document does not do justice to that literature, nor does it evaluate the technical merit of the studies that have been cited. It has been necessary to rely on a number of secondary sources that summarize research findings because access to primary sources of research studies has been limited. The authors recognize a potential weakness in this approach in that research findings have been filtered by other writers. Whenever possible, primary sources have been used.

Finally, this document has been written primarily with school and classroom practitioners in mind. The document is neither simplistic nor exhaustive—it attempts to provide the serious but busy reader with a better understanding of the complexities surrounding the issue. It will also hopefully provide useful insights and suggestions to educators who have the front-line responsibility for closing and ultimately eliminating the gap.

Size of the Gap

The sizable gap in achievement has remained relatively unchanged over the past decade. While substantial progress had been made in the 1970s and 1980s toward closing the achievement gap, since 1992 the gap in performance between white students and Black students on the National Assessment of Educational Progress (NAEP) has remained about the same. The gap between white and Hispanic students has increased over the same period of time. The gaps persist on college admissions tests as well. For example, the gap nationally on the combined verbal and math sections of the 2002 SAT between white and Black students was 203 points. The Century Foundation reported the gap a different way, noting that the average reading performance of a 12th grade low-income student is the same as the average performance of an 8th grade middle-class student (cited in D'Amico, 2001).

The gap also occurs in Washington state. Results from various statewide and college admissions tests reveal a large gap in the scores of white and Asian students and the scores of Black, Hispanic, and American Indian students. The gap on the WASL, ITBS/ITED, and SAT in 2002 can be seen in Table 2. On each type of test, white students performed much better in both reading and math than Black, Hispanic, and American Indian students at all grade levels. Asian students did almost as well as white students in reading and performed better than white students on all but one math test (grade 9 ITED). The gap in WASL scores between white students and Black, Hispanic, and American Indian students ranged from 20 to 30 percentage points in the three tested grades in reading and math. The gap on the SAT between white and Black students was 159 points. Appendix A provides more information on the WASL scores of the various racial/ethnic groups. State and district WASL and ITBS/ITED results are available on OSPI's website at www.k12.wa.us/edprofile.

The gaps on the WASL are due to a great extent to differences in performance on "open-ended" questions. Unlike multiple choice questions, open-ended items require students to explain their answer in narrative form or show their work. These items represent a substantial portion of the total points on the reading and math tests. While white students perform better on both multiple choice and open-ended items than Black, Hispanic, and American Indian students, whites scored *much* better on open-ended items. The gaps were largest in grade 10 math, where white students obtained 61 percent more points than Hispanic students and 73 percent more points than Black students. Only on the grade 4 reading test were the gaps between whites and the other three groups roughly the same for both types of items.

Other measures of academic performance also show a disparity across race/ethnic groups. White and Asian students have higher grade-point-averages than Black, Hispanic, and American Indian students. Figure 1 shows these averages for these groups of students in grades 9–12 in school year 2000–01. The fact that the averages are higher in the later grades reflects the fact that lower-achieving students are gradually dropping out of school as they get older.

Table 2: Washington State Assessment Results by Race/Ethnicity, 2002

	WASL Percent Meeting Standard			ITBS/ITED National Percentile		
	Grade 4			Grade 3		
	Reading	Math	Writing	Reading	Math	Composite
American Indian	50.9	36.0	32.6	44	51	45
Asian/Pacific Is	70.6	59.4	62.0	53	72	64
Black	49.3	28.6	37.0	44	48	44
Hispanic	42.0	29.3	31.0	31	42	33
White	71.2	57.4	53.2	62	70	65
State	**65.6**	**51.8**	**49.5**	**57**	**66**	**59**

	Grade 7			Grade 6		
	Reading	Math	Writing	Reading	Math	Core
American Indian	26.4	14.3	34.9	39	42	40
Asian/Pacific Is	47.6	38.6	62.5	52	66	61
Black	24.2	10.3	36.9	37	39	37
Hispanic	21.2	11.6	31.8	29	36	32
White	49.7	34.4	57.2	60	61	60
State	**44.5**	**30.4**	**53.0**	**54**	**58**	**56**

	Grade 10			Grade 6		
	Reading	Math	Writing	Reading	Math	Core
American Indian	43.7	21.3	36.8	36	45	40
Asian/Pacific Is	62.1	44.9	58.1	51	62	60
Black	36.2	13.0	33.6	33	37	36
Hispanic	34.9	14.3	29.4	27	39	34
White	64.6	41.9	59.6	59	64	62
State	**59.2**	**37.3**	**54.3**	**54**	**59**	**58**

	SAT (All Grades)		
	Verbal	Math	Total
American Indian	500	493	993
Asian/Pacific Is	495	541	1036
Black	459	449	908
Hispanic	476	474	950
White	533	534	1067
State	**525**	**529**	**1054**

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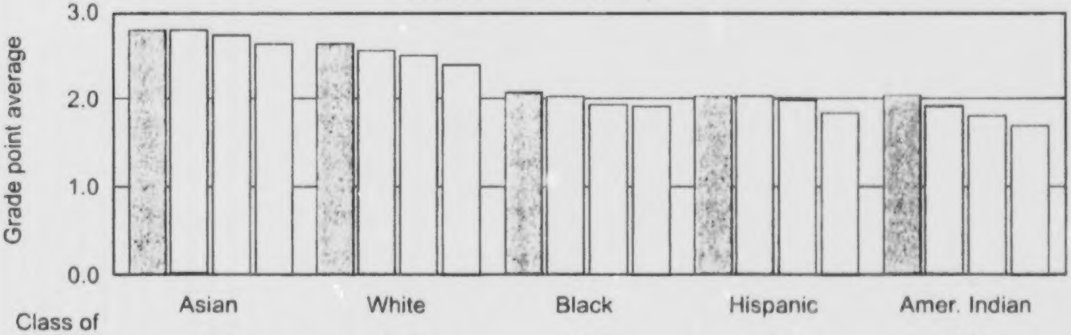
Figure 1: Black, Hispanic, American Indian Students Have Much Lower Grades (School Year 2000–01)



Class of	Asian	White	Black	Hispanic	Amer. Indian
▨ 2001	2.73	2.57	2.03	1.99	2.01
☐ 2002	2.73	2.51	2.01	2.01	1.87
☐ 2003	2.69	2.46	1.91	1.94	1.78
☐ 2004	2.62	2.35	1.90	1.83	1.68

Source: OSPI analysis of P-210 data

Improvement Has Occurred

An emphasis on the achievement gap obscures the fact that minority students as a whole are performing better on tests than in previous years. The level of improvement differs across groups, grades, and subjects. Results on the WASL show the following trends:

- In reading, every minority group has made greater gains than white students in every grade.
- Grade 4 students have had greater gains than those in grade 7, regardless of race/ethnicity.
- In grades 4 and 10, groups usually made more progress in reading than in math; in grade 7, groups usually made more progress in math.
- American Indian students have made greater gains than Black and Hispanic students. In most cases, Asians have made greater gains than whites. A higher proportion of Asians meet the standard in math than white students.

Despite this improvement, the gap remains relatively unchanged because the average rate of improvement among some minorities has either been slower or not much better than that of white and Asian students. Closing the gap depends on the improvement rates of both white and minority students. As long as the same level of improvement occurs, the gap will not close. As shown in Table 3, minority students have made greater gains in reading, so the gap has been reduced somewhat. However, the gap in math has grown because improvement by minorities is slower than white improvement in most cases. As a group, students of color now score about 20–30 points below white students. To reduce and ultimately close the gap, students of color will need to accelerate their achievement at a much faster rate in the future if whites continue to improve as well.

Examining average scores hides the fact that minorities in some districts have made substantial progress while others have made little or no gains. This unevenness in improvement across districts and schools is found in every grade and for every minority group. Efforts are needed to determine effective practices among schools and districts with higher levels of minority improvement, and this information needs to be shared with others serving those groups.

Table 3: Minority Improvement and Achievement Gap

WASL Percentage Point Gain, 1998–2002

Race/Ethnicity	Grade 4		Grade 7		Grade 10[1]	
	Reading	Math	Reading	Math	Reading	Math
American Indian	17.9	22.1	7.3	8.6	14.1	7.0
Asian/Pacific Is	16.5	25.8	11.1	13.8	13.6	7.6
Black	13.9	15.6	6.7	5.4	10.1	3.5
Hispanic	14.4	17.9	6.5	6.1	8.9	2.7
White	9.7	22.0	6.4	11.6	6.3	3.8

[1] The WASL in grade 10 was not administered until 1999.

Size of the Gap, 2002 WASL

Race/Ethnicity	Grade 4		Grade 7		Grade 10	
	Reading	Math	Reading	Math	Reading	Math
American Indian	20.3	21.4	23.3	20.1	20.9	20.6
Asian/Pacific Is	0.6	-2.0	2.1	-4.2	2.5	-3.0
Black	21.9	28.8	25.5	24.1	28.4	28.9
Hispanic	29.2	28.1	28.5	22.8	29.7	27.6

Note: The gap is defined as the percentage point difference between white and minority students. A negative number indicates performance above the level of white students.

Future Goals

The Academic Achievement and Accountability Commission (A+ Commission) has established a goal to reduce the percentage of students not meeting the WASL standards by 25 percent between 2001 and 2004. OSPI has applied the same goal for each racial/ethnic group (see Appendix B). If these goals are met, the gap will gradually be reduced over time. However, scores to date show that these are ambitious goals, particularly for the lower-performing minority groups which have had much lower reduction rates in the years between 1998 and 2001, a similar 4-year period. Table 4 shows that in almost every case the reduction has been slower for Blacks, Hispanics, and American Indians in reading, math, and writing in grades 4, 7, and 10. Consequently, the gap between whites and Asians and the other groups has not changed much in most subjects and grades. Since children of color enter kindergarten with fewer skills than their white and Asian peers (U.S. Dept. of Education, 2002), meeting the goals in the early grades will require more preparation before they enter school as well as more extended learning time and assistance during the early years of school.

The new federal *No Child Left Behind* legislation requires that all students, including those in each minority group, meet state proficiency standards by the year 2014. Each minority group is to be tracked to determine if sufficient progress is being made to meet that goal. Appendix B provides scores that need to be attained for each minority group to have 100 percent of its students meet the standard, based on WASL results in 2002, the baseline year.[1] While these scores rise much more rapidly than in previous years, these target scores may not be high enough for most of the minority

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Table 4: Percent Reduction in Students Not Meeting WASL Standard, 1998–2001

	Grade 4			Grade 7			Grade 10*		
Race/Ethnicity	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing
American Indian	23.5%	13.6%	8.7%	3.4%	6.6%	18.6%	20.5%	6.3%	7.4%
Asian/Pacific Is	26.9%	21.4%	17.5%	7.8%	9.8%	31.2%	33.6%	16.4%	9.9%
Black	20.0%	7.5%	6.7%	3.5%	3.1%	17.8%	19.5%	2.7%	5.9%
Hispanic	17.9%	9.7%	7.8%	2.5%	3.1%	14.2%	16.8%	3.4%	3.4%
White	27.7%	21.4%	11.9%	3.3%	11.5%	27.9%	22.6%	9.0%	10.8%

* The WASL in grade 10 was not administered in 1998, so the reduction shown is from 1999 to 2001.

Table 5: Graduation and Dropout Rates for the Washington State Class of 2001 Cohort

Race/Ethnicity	Graduates	All Completers*	Dropouts	Continuing**	Unkown**
American Indian	52.6%	54.8%	16.7%	14.5%	14.0%
Asian/Pacific Is	79.4%	80.3%	7.0%	8.7%	4.0%
Black	60.6%	62.6%	14.0%	14.4%	9.0%
Hispanic	53.7%	57.0%	14.3%	15.6%	13.1%
White	74.2%	75.6%	8.1%	9.2%	7.1%
All Groups	71.9%	73.4%	9.0%	10.0%	7.6%

* Includes students completing their education with an IEP, adult diploma, or GED.

** Many "continuing" students may eventually be considered dropouts if they do not return to school the following fall. Students with an "unkown" status are considered to be dropouts by the federal government.

Source: *Graduation and Dropout Statistics for Washington's Counties, Districts, and Schools, Final Report, School Year 2000–01*. OSPI, 2002.

groups to meet the level required for "adequate yearly progress" (AYP) under Title I because of the way the federal government requires the goals to be established.[2]

Graduation and dropout rates will also be included in these accountability measures. Table 5 shows these rates for Washington students in the Class of 2001 cohort (those beginning grade 9 in fall 1997). A substantial gap exists in these rates—Asians had better rates than Whites, while American Indians and Hispanics had the worst rates. The wide disparity in rates is due in part to the very large "unknown" and "continuing" categories, which some view as being a part of the dropout population (OSPI, 2002).

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[1] Requiring 100 percent of the state's students to meet high standards is a very ambitious requirement. A "safe harbor" provision in the federal legislation provides an alternate calculation that allows certain penalties to be avoided if the performance level is not as high as the required level in the years prior to 2014. Specifically, schools that do not make "adequate yearly progress" (AYP) in all subgroups can be counted as making AYP if the number of students not meeting standard in any one underperforming subgroup decreases by at least 10 percent in a year.

[2] The state has yet to determine how the baseline for AYP will be calculated. Under current federal regulations (which still need to be finalized), the majority of schools that enroll large proportions of students of color and poverty would fail to meet AYP. OSPI is proposing to use more realistic baselines that are still consistent with federal intent.

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A myriad of factors have been analyzed by researchers over the years to determine the causes of the differences in test scores between white students and students of color and between students from affluent and poor families. These factors are often categorized into two broad areas: factors outside the sphere of influence of schools (e.g. family background, social and economic factors, personal qualities) and factors that can be influenced by the school system (e.g., school organization and size, classroom routines, instructional methods, teacher expectations). Recently more attention has been focused on the school-related factors and their impact on performance of students of color and poor children. Contemporary research studies have challenged assumptions that schools and educators have little impact on student achievement. Schools matter, and teachers matter more (Haycock, 1998; Darling-Hammond, 1999; Knapp, 2000). This chapter summarizes pertinent research and professional literature about family, economic, personal/psychological, historical, socio-cultural, and educational system factors that have led to the achievement gap.

Family/Economic Factors

Family and economic factors have been viewed as causing low achievement among students of color and poverty. *Equality in Educational Opportunity*, a report by James Coleman published by the federal education department in 1966, indicated that family circumstances had more influence on the achievement of students than did schools. His statement "schools bring little influence to bear on a child's achievement that is independent of his background and general social context" (p. 325) was so frequently quoted that it helped undermine confidence in teachers and schools, as some thought students could not be taught and the educators were powerless to make a difference. Subsequent investigations countered this finding and some studies found fault with the research methods. Although Coleman later wrote that his techniques overestimated the effects of background and underestimated the effects of school, the "no effects" findings continued to influence thinking about student achievement.

Actually, Coleman pointed out inequalities in the education system and found that there were differences in the relationship of schools to various racial and ethnic groups when socioeconomic factors were statistically controlled. The achievement of white students was found to be less related to the "strengths and weakness of the school's facilities, curriculums, and teachers than is the average minority pupil's." Or put another way, "the achievement of minority pupils depends more on the schools they attend than does the achievement of majority pupils" (p. 22). The report also stated that the quality of teachers shows a strong relationship to pupil achievement and has a cumulative impact on achievement. Other factors related strongly to achievement are the educational backgrounds and aspirations of the other students in the school.

Nonetheless the strong relationship between test scores and family socioeconomic status is a widely replicated finding, even though the methods used to measure socioeconomic status differ (Hedges & Nowell, in Jencks and Philips, 1998). Other family environmental factors such as parents' educational attainment, household size, and

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children's birth weight have been found to be related to achievement. Thus, researchers suggest that "eliminating environmental differences between black and white families could go a long way toward eliminating the test score gap" (Phillips, Brooks-Gunn, Duncan, Klebanov, & Crane in Jencks & Phillips, p. 138).

Out-of-school factors affect students prior to their entering kindergarten. Lee and Burkam (2002) used data from a U.S. Department of Education survey of more than 16,000 children at the time of entry in kindergarten to describe the disparities in learning and enrichment experiences and family resources between low and high income children that appear to affect school achievement. They report that children from the lowest socioeconomic groups score 60 percent lower in math and 56 percent lower in reading than children in the highest groups. Phillips et al. (1998) estimates that at least half of the reading gap that exists between Black and white students at the end of grade 12 can be attributed to the gap that exists when the students enter first grade.

On school readiness measures such as vocabulary, large numbers of students of color and poverty score lower than white students. Hart and Risley (1995) found that by age 3 children in low-income families had significantly lower vocabularies than children from middle- and high-income families (cited in Wasik, Bond, & Hindman, 2002). Vocabulary development is an important part of language development leading to reading and oral literacy; lagging in vocabulary development, therefore, constitutes an early achievement gap that contributes to the ongoing phenomenon. A longitudinal study by the U.S. Department of Education also found that Black and Latino students were behind white and Asian children when they started kindergarten. For example, 57 percent of Black children could recognize letters compared with 71 percent of white children. In math skills, 43 percent of the entering Latino kindergartners could understand the relative size of objects compared with 64 percent of the white children. This study also found that achievement gaps actually narrowed during kindergarten for basic skills but widened for more complex skills. Although all children made gains, at the end of the year a gap still remained (Kober, 2001).

Out-of-school factors affect students in other grades as well. Some researchers have found that achievement gains are made at about the same rate for all students during the school year, but during the summer months, "upper SES children's skills continue to advance (albeit at a slower rate than during the school year), but lower SES children's gains, on average, are flat" (Alexander, et. al, 2001). Phillips (2000) notes several studies that have found the Black-white gap "widens over the course of schooling primarily because African-American children gain less than white children during the summer" (p. 117). Thus, schools play a compensatory role to counteract the external forces that exist in the home and community of poor students.

Poverty as a predictor of student achievement continues to be demonstrated by researchers in Washington state. A study by Abbott and Joireman (2001) at the Washington School Research Center found that the strongest predictor of student performance on the WASL and ITBS could be explained directly by family income status. These researchers concluded that "across a variety of grade levels, instruments (WASL, ITBS) and subscales… low income explains the bulk of the variance in academic achievement (12-29 percent) when compared to ethnicity (0.6 percent)."

They conclude that the "relationship between ethnicity and academic achievement appears to be mostly indirect: ethnicity is related to low income, which in turn is related to academic achievement..." (p. 13).

Other research in Washington has yielded the same results. In an analysis of 4th and 8th grade ITBS results for 1996-97, the Washington state Joint Legislative Audit and Review Committee (JLARC, 1999) reported that test scores decline as socioeconomic status declines. Factors external to school were found to have a much greater influence on test scores in a school than education-related factors such as teacher education, teacher experience, and the percentage of staff who are teachers. Of the external factors, JLARC reported parent education had the strongest effect on test scores, followed by eligibility for free or reduced-priced meals. OSPI's analysis of the Learning Assistance Program (2001) found a clear pattern of achievement by school socioeconomic status, regardless of subject matter or type of test. Data in Appendix C clearly show this relationship. Bylsma (2001) found a strong correlation between a schools' percentage of minority students and its percent of low-income students, and the percentage of low-income students in a school was a stronger predictor of test scores than its percentage of minority students. Poor families tend to have higher mobility, fewer support resources, and less educated adults in the home, conditions that interrupt the continuity of the instructional process and can limit the amount of help that can be provided to students. Data limitations, such as under-reporting of low-income students at the secondary level, not having student-level socioeconomic data, and the fact that some schools do not have a free/reduced-price lunch program have restricted analysis of this relationship.

Personal/Psychological Factors

The literature reports theories and evidence of personal and psychological factors that may underlie the different achievement levels of students of color. Some theories have focused on the impacts of genetics versus environment on children's learning abilities; other theories relate to testing bias and psychological factors. "Stereotype threat" and "acting white" are two theories related to psychological impacts that may negatively affect the performance of students of color. A third is internalizing inferior status conferred by others. Student habits and aspirations can also affect achievement levels. Results of studies related to these personal and psychological perspectives and their impact on achievement are described in the following section.

Genetic Factors

Differences in test scores, in particular IQ scores, were used in earlier times as evidence of biological differences in students' abilities and achievement. The question of the genetic basis for differences in intelligence has been debated for many, many years. "According to the IQ deficit theory, genetic deficiencies of students of racial/ethnic minority and lower socioeconomic backgrounds explain why they do poorly in school" (Villegas & Lucas, 2002, p. 39). The use of "the IQ test, developed early in the twentieth century, seemed to reinforce this view: for decades, whites scored about 15 points higher than blacks". However, the IQ difference is now closer to 10 points. (Nisbett in Jencks & Phillips, p. 86-87). The view that IQ is not immutable has gained support in recent years.

More recent research has dispelled the myth of genetic and biological differences. For example, Nisbett (cited in Jencks & Phillips) concludes his essay *Race, Genetics, and IQ* by noting that "the studies most directly relevant to the question of whether the IQ differences between blacks and whites is genetic in origin show no association between IQ and African, as opposed to European, ancestry. A few older studies of skin color are consistent with European superiority, but most are not. The best modern study shows no relationship between IQ and European ancestry as defined by blood group factors, thus indicating that although there is a weak relationship between skin color and IQ, this has nothing to do with European ancestry" (p. 100). Nisbett concludes that "the most relevant studies provide no evidence of the genetic superiority of either race, but strong evidence for a substantial environmental contribution to the IQ gap between blacks and whites. Almost equally important, rigorous interventions do affect IQ and cognitive skills at every stage of the life course. Moreover, the IQ difference between blacks and whites in the United States has narrowed in recent decades. The evidence thus indicates that if there are genetically determined IQ differences between the races, they are too small to show up with any regularity in studies covering a wide range of populations and using a wide range of methodologies" (p. 101).

Psychological Factors

Stereotype threat, acting white, and internalizing inferiority are themes that have emerged from some research studies. These studies suggest that individual attitudes and beliefs, as well as peer norms or peer pressure, can impact student achievement. Although these themes require further study, the concepts may provide insight into students' perception of and response to their school experiences.

Stereotype Threat In *The Black-White Test Score Gap*, Steele and Aronson (1998) report five studies related to "stereotype threat." Under a variety of testing conditions, performance data of Black and white college students were collected and analyzed. Based on the results, Steele and Aronson suggest that the unconscious fear of confirming the stereotype (i.e., Blacks have inferior intellectual ability) in effect interferes with the student's actual performance. The researchers note that stereotype threat decreases efficiency on tests. The threat seems to apply more to students who are high performing and have high aspirations than to those who do not because they value education and have the most to lose if they do not do well. Steele and Aronson suggest that "remedial" and other special help programs may even further hinder Blacks' academic performance as these programs confirm the stereotype. The researchers caution that there are many unanswered questions regarding the theory and the extent of applicability across performance levels and age groups.

Acting White The hypothesis has been offered that Black students devalue education. The theory suggests schools represent the white dominant culture. Therefore, to do well in school or to care about school is to "sell out" one's own culture. Fordham and Ogbu (1986) developed the acting white theory based on a study in an all-black high school and their research is frequently cited.

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Although there appears to be a consensus that peer culture and peer pressure have potential to influence students' motivation and behavior, other researchers have offered contradictory conclusions. For example, Cook and Ludwig used the 1988 National Education Longitudinal Study data to assess racial differences regarding student attitudes about school. They found negligible differences between Black and white adolescents regarding indicators of devaluing school such as skipping school, amount of home work done outside of school, and the importance of doing well in school. Both white and Black students who strive to excel are taunted and sometimes ostracized by their peers. "Black high school students are not particularly alienated from school. They are as likely as whites to expect to enter and complete college, and their actual rate of high school completion is as high as that among whites from the same socioeconomic background. Also, black and white students report that they spend about the same amount of time on homework and have similar rates of absenteeism" (Cook & Ludwig in Jencks & Phillips, p. 390).

Ferguson (in Jencks & Phillips), in commenting on the research by Cook and Ludwig, questions that their study refuted the acting white theory or the impact of peer pressure on student achievement. Ferguson raises the issue of the appropriateness of the measures used by Cook and Ludwig; they used measures of academic behavior rather than measures of cultural norms. He counters that there are other subtle pressures that may provide evidence to support the theory of acting white. He noted that "social pressures against acting white are stronger and more effective than those against acting nerdy" (p. 395). He also hypothesizes that acting white may be relevant to the question of why the gap does not close more during the high school years.

Internalizing Inferiority Cummins (1986) discusses differences in student performance in nations in which minorities are considered low status. He writes that minority groups of low status, specifically Burakumin in Japan, Finns in Sweden, and Blacks in the United States, internalize their inferior status and do not do well in school. Some of these "low status groups," however, perform better when in other countries where they are not attributed with low status. For example, Burakumin students perform well in American schools. According to Cummins, "school failure does not occur in minority groups that (1) remain positively oriented toward both their own and the dominant culture, (2) do not perceive themselves as inferior to the dominant groups, and (3) are not alienated from their own cultural values" (cited in Henderson & Berla, p. 53).

Other researchers have also examined the psychological effects of racism on people of color. In 1947 Clark and Clark found "(a) Black children preferred playing with a White doll over a Black one, (b) the Black doll was perceived as being 'bad,' and (c) approximately one-third, when asked to pick the doll that looked like them, picked the White one" (in Sue and Sue, 1990, p. 99). Sue and Sue also note that in 1987 a group of researchers reported similar results using the cabbage-patch dolls. They conclude that racism may contribute to a "sense of confused self-identify among Black children."

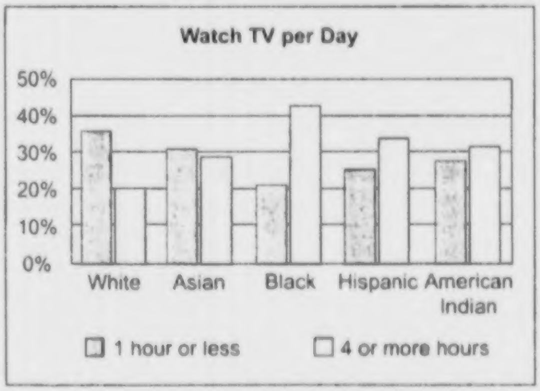
Both personal and interpersonal dynamics impact students' perceptions of themselves and their abilities, their aspirations, and their commitment to school. The studies noted above attempt to explain the relationship between those personal attitudes and beliefs and academic performance. However, the studies are not conclusive and leave unanswered questions. Nevertheless, consideration of these concepts provides more insight into the complexity surrounding academic achievement among groups of students.

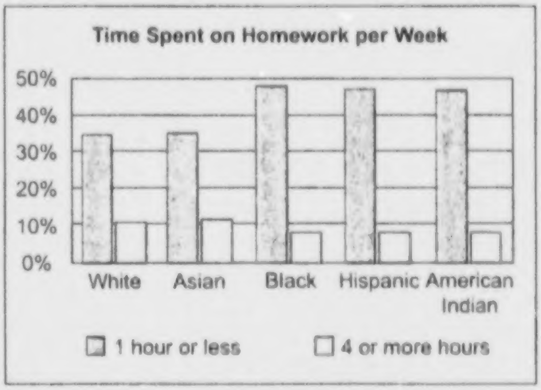
Student Habits and Aspirations

A student's personal habits and aspirations can influence their performance. Students who study longer, watch less television, and have higher educational aspirations score better on Washington's standardized tests (Fouts, 2002; Loeb, 2002). OSPI's analysis of the habits and aspirations of nearly 70,000 grade 6 students in Washington, as recorded on their 2002 ITBS survey, found that Black, American Indian, and Hispanic students tended to watch more television, study fewer hours, and aspire to lower educational goals than white and Asian students (see Table 6 and related graphs). However, the reasons for these findings are not clear. Students who study less and watch more TV may do so for a number of reasons, including because (1) less is expected of them, (2) they may have fewer opportunities to pursue other outside activities, and (3) they may have less hope of accessing higher education or their career choices.

Table 6: Student Survey Results, ITBS Grade 6, 2002

Watch TV a day	White	Asian	Black	Hispanic	American Indian
1 hour or less	35.9%	31.2%	21.1%	24.4%	26.9%
4 or more hours	20.2%	27.9%	42.4%	33.4%	30.7%
School Plans					
Graduate from HS or dropout	5.8%	3.7%	5.3%	11.4%	9.8%
Graduate from college or higher	78.9%	82.7%	77.1%	69.6%	69.4%
Time Spent on Homework Each Week					
1 hour or less	33.6%	35.0%	48.2%	47.0%	46.8%
7 or more hours	10.4%	11.4%	7.2%	7.9%	7.7%


Watch TV per Day


Time Spent on Homework per Week

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Historical Factors

Placing modern public schools in the United States in a historical context provides a better understanding of why achievement varies so greatly across populations of minority and non-minority children. Although Jefferson and others of the nation's founders saw education as necessary for the citizenry of a democratic society, American schools were not created to achieve the twin goals of equity and excellence for all students. The purposes and goals of education have changed over the years. Often there have been multiple goals; frequently the goals competed and even conflicted with one another.

Early American schooling, beyond the rudiments, was a luxury for those young people whose families did not need their labor (Tyack, 1974). These early schools, therefore, mostly educated the children of the well-to-do who were thought destined to assume leadership roles in society, whether in church, university, business, or government. During slavery Blacks were denied the right to formal schooling. When they finally were given a chance for an education, it was in substandard schools, segregated by race, marked by inequities of opportunity and resources.

Although schools in the nineteenth century were valued and supported by Americans, the basic education children received was limited in content and years of schooling. Before high schools were commonplace, it was considered an "accomplishment when students received even five years of schooling" (p. 66). At that time, "... it was not only permissible but desirable for youth to enter the work force in their mid-teens... There were few occupations for which extended schooling was a prerequisite in 1880" (p. 68).

The common schools in the mid-1800s served to provide "positive knowledge" to students and to teach behavior and roles that were expected of the students. Punctuality, regularity, attention, and silence were seen by the educational leaders of the time as necessary for successful life in an industrial and commercial civilization. During the industrial age and a time with high immigration, schools provided basic skills to the masses of students to prepare them for the factory workplace and to help them fit into society. These schools were modeled on bureaucratic principles emphasizing scientific management practices and efficiencies. Schools looked much like factories themselves—characterized by hierarchical management, rigid structures of time and space, with teachers treated as low-level employees who followed procedures emphasizing drill and memorization (Callahan, 1962; Darling-Hammond, 1997; Bransford et al., 2000).

Segregated classes and schools appeared in the mid-1800s. When compulsory attendance laws were enacted in Boston, for example, "intermediate schools" were opened to serve the poor and immigrant children who were not eligible for the grammar schools, essentially creating "de-facto segregation" (Tyack, p. 69).

As the development of public schools in America continued, they were shaped by the political and economic conditions of the day. Although education reformers, such as Horace Mann, had a vision of schools for "raising the spirits and aspirations of the young," by the turn of the twentieth century, "the educators had to choose: would they train their students to be independent, self-directed individuals or dependent wageworkers? The workers themselves might opt for the first alternative; their future employers would most certainly choose the latter" (Nasaw, 1979).

Modern public schools continue to respond to economic and political pressures. Waves of reform have been well documented (Oakes, 1984; Cuban, 1990; Darling-Hammond, 1996; and others). However, schools retain many of the characteristics of the institutions of the past, and as a result, school people are often described as reluctant to change or even obstructionist.

Socio-Cultural Factors

The social and cultural characteristics of America are reflected in the public school system. Using the school system to sort students and prepare them for different paths began at the turn of the last century as noted above. The stratified, unequal society that existed for affluent white, nonwhite, and poor people has been perpetuated in educational practice. Thus, differentiated schooling, cultural bias, and differences between family and school perspectives have contributed to creating the achievement gap.

Differentiated Schooling

Differentiated schooling was implemented consciously to achieve "social efficiency." Education leaders including university presidents led the effort to develop differentiated schooling, especially in high schools. Cubberly, the dean of education at Stanford University, called for realism in schools. In 1909, he called for schools to "give up the exceedingly democratic idea that all are equal, and that our society is devoid of classes … Increasing specialization…has divided the people into dozens of more or less clearly defined classes, and the increasing centralization of trade and industry has concentrated business in the hands of a relatively small number" (cited in Nasaw, 1979, p. 130). Another dean, James Earl Russell of Columbia Teachers College, warned "unmet expectations were a danger to the individual and to the society." In 1909 he said, "If the chief object of government be to promote civil order and social stability, how can we justify our practice in schooling the masses in precisely the same manner as we do those who are to be our leaders?" (p. 131).

The result was differentiated schools—different curricula for different classes of students. Because students faced different futures, they were thought to deserve different educations. School programs were extended to include vocational courses and domestic sciences, opening up the traditional, classical curriculum. The schooling system then developed sorting mechanisms as early as elementary school to ensure students received an education that corresponded to their "probable destiny." The resultant system was socially efficient. "A socially efficient schooling system would select the minds best suited for mental training and the bodies best suited for manual training" (Nasaw, p.137). Ultimately, the comprehensive high school as we know it today, with both vocational and academic programs, emerged. Nasaw concludes that high schools "were called upon to do the impossible: to uphold the myths of the 'classless' community while at the same time preparing young people for their future lives in a society based on class divisions" (p. 157).

Cultural Bias

Issues of cultural and racial bias and discrimination are embedded in the fabric of American public schools, which is evidence of their existence in the larger society. Culture is defined as the basic assumptions, beliefs, and values that are shared and held so deeply by a group that they exist in the unconsciousness, and therefore are invisible, even while they affect the individual understanding and view of the world. Public schools are characterized by two conflicting purposes: stability and change. Schools are generally expected to maintain and stabilize the society while they concurrently educate, or change, individuals. However, to maintain an unequal, biased society is to perpetuate inequality (Grossman, 1995). Although the public schools did not necessarily create racism and class bias, the schools "often reinforced injustice for some at the same time that they offered opportunity to others" (Tyack, p. 4).

Because public schools are steeped in the culture and traditions of white middle-class European heritage, some scholars assert that white dominance is engrained in the system. White dominance and white privilege perpetuate bias and discrimination through institutional racism and socioeconomic class structures (Howard, 1999; Jensen, 1998; McIntosh, 1990). Based on a study of math instruction in several countries, Stigler and Hiebert (1999) contend that teaching is a cultural activity in which there are "recurring features or patterns" that markedly distinguish instruction in one country from that in another in spite of some variations within a given culture. Although most white educators do not consciously discriminate against poor children and children of color, a European-centric curriculum dominates and the standards of classroom behavior, language, and models for learning reflect white culture. "Multicultural education" has been advocated by some educators and academicians for a number of years (Banks, 2001; Cole, 1995; Diaz, 2001; Gay, 2000). However, the school curricula, particularly language arts, literature and the social sciences, typically continue to emphasize western European and white culture. Traditional classrooms and schools emphasize individualism, competition, and a future orientation that are generally associated with white middle-class values. Many classroom instructional approaches, such as how questions are framed and what type of answers are sought, and standards for behavior and language use also reflect the mainstream culture.

White middle-class schoolteachers may be oblivious of the degree to which some of the routines and rules reflect their own culture and assume that the culture of schools is more universal than it is. Unwittingly, teachers may perpetuate the difficulties experienced by minority and poor students as they expect children to behave according to norms of the majority culture without making those norms explicit. Teachers generally expect students to change to fit into the molds of the school rather than adapt the school structures to the children (Delpit, 1995; Greenfield, Raeff, & Quiroz in Williams, 1996; Lipman, 1998; Howard, 1999). Students who do not conform have been described as deficit, disadvantaged, culturally deprived, and at-risk of failure. The labels convey that the students and their families are to "blame" and the use of the terms "constructs reality for those children, and for the professionals who are responsible to them" (Fennimore, 2000, p. xi).

Family and School Disconnect

Other writers attribute the differences in student learning to the imperfect alignment between home and school for children of color. In *The Black-White Test Score Gap*, Jencks and Phillips note that Black children's test performance improves when they are raised in white homes, suggesting there are differences in the way Black and white children are taught in the home. Lightfoot suggests that the disconnect between home and schools is due to misperception rather than conflicting values. She writes, "The literature shows overwhelmingly that blacks (regardless of social status) universally view education as the most promising means for attaining higher socioeconomic status. The dissonance between black parents and teachers, therefore, does not lie in the conflicting values attached to education but in the *misperceptions* (emphasis in original) they have of one another" (cited in Ashton and Webb, 1986, p. 21).

Because schools are more reflective of the white, middle-class culture, children from white, middle-class homes generally find schools a more comfortable fit with their experiences than do children of color and poverty. Children with different cultural and family conditions, expectations and routines may not adapt easily to traditional school structures and practices. Delpit (1996) describes differences Black children might experience between family and school. Black families, for example, are more likely to give forthright directions than white middle-class teachers. Middle-class teachers often give a direction by asking a question, e.g. "will you be quiet, please?" The question implies the student has a choice although the teacher expects obedience. Wong Fillmore (1990) describes the effect of child-rearing practices in the home on school performance. In her study of five different racial and ethnic groups, she emphasizes that "the problem lies not in a lack of preparation for learning but instead in the mismatch between the preparation provided by the home and which is expected in the school" (cited in Henderson & Berla, 1995, p. 149).

Educational Systems Factors

Not all students have access to a good education. Educational systems have institutionalized differences in programs and opportunities for students that exacerbate the achievement gap (Noguera, 2001). From the early beginnings of "tracked" educational programs to contemporary schools, white and more affluent students have had opportunities and access to an education that differs markedly from the education provided for students of color and poverty. Teaching strategies have been devised for low-achieving students, called the "pedagogy of poverty" by Haberman (1991), that may retard their learning and their development of higher cognitive skills. The education that minority and low income students receive is generally characterized by lower quality teaching, lower expectations for performance and behavior, limited access to challenging and rigorous coursework, and insufficient instructional resources such as reasonable class sizes, up-to-date instructional materials, and clean and safe buildings. Issues related to the characteristics and practices of schools and the impact on achievement of students of color and poverty are developed in more detail in the following section. These issues are disparate conditions and opportunities, teacher attitudes and beliefs, and inadequate instruction and support, all of which tend to be interrelated.

Disparate Conditions and Opportunities

Although schools were theoretically desegregated after *Brown v. Board of Education of Topeka, Kansas* in 1954, de facto segregation continued. Even with efforts to integrate schools, equal educational opportunities did not result for students of color and poverty. Many authors have described the internal segregation that occurs in the form of assignment of disproportionate numbers of children of color, particularly Black male students, to special education, to slower, remedial "tracks" and to programs for students with behavioral problems (Oakes, 1985; Darling-Hammond, 1997). The reverse occurs as well: disproportionately fewer students of color are enrolled in gifted and talented classes, enrichment programs, or in other challenging classes.

Kozol (1991) chronicled the compelling stories of poor and Black children in the United States that reveal great inequalities of opportunity and school experiences. He asserts that when it comes to the reality of public education for poor and Black children, "social policy has been turned back almost one hundred years" (p. 4). He provides data to compare spending on children's education among affluent and poor school districts and paints a dispiriting picture of the schools and classroom experiences available to children in poor communities.

According to Education Trust (Haycock, 2001), schools commonly provide the least to the children who need the most. She summarizes the perception of the adults in schools when asked about the achievement gap. The adults tend to describe the problem of low student achievement in terms of the children and their families: "They're too poor." "Their parents don't care." "They come to school without an adequate breakfast." "They don't have enough books in the home." "There are not enough parents in the home" (p. 7-8). In contrast, Haycock notes the perception of the students, who describe their school experiences as marked by

- "Teachers who often do not know the subjects that they are teaching..."
- "Counselors who consistently underestimate their potential and place them in lower-level courses."
- "Principals who dismiss their concerns."
- "A curriculum and a set of expectations that feel so miserably low-level that they literally bore the students right out the school door."

The way funding and staff are allocated can affect student achievement. Many studies have documented disparities in resource allocation, with more qualified staff (and hence more resources) located in wealthier schools. A 1999 analysis of Washington schools revealed "a slight decline in both teacher education and experience as the socioeconomic level of a school declines" (JLARC, p. 34). Three Education Trust reports (Haycock, Jerald, & Huange, 2001; Jerald and Ingersoll, 2002; Education Trust, 2002) also noted examples of disparate conditions in the system.

- Poor students and those of color are more likely to be assigned teachers who are inexperienced or relatively unqualified, e.g., lacking certification in the subjects they teach.
- They are more likely to be assigned to low-track or remedial classes, to be retained in grade, and to be denied high school diplomas.
- Disparate funding levels between high- and low-poverty districts were found in 42 states.
- The funding gap has increased significantly in 9 states although it narrowed somewhat in the nation as a whole.

Making Schools Work for Children in Poverty (report from The Commission on Chapter 1, 1992) concludes "that low expectations and the absence of rigor in urban schools with concentrations of children in poverty 'consigns them to lives without the knowledge and skills they need to exist anywhere but on the margins of our society and consigns the rest of us to forever bear the burden of their support'" (cited in Williams, 1996). Nettles (2002) found that individual students from low-income families perform better when they are in wealthier schools. The exposure to a higher overall level of teacher quality and more resources is no doubt a contributing factor in this trend.

The Civil Rights Project at Harvard University reported research that found students of color are over-represented in special education programs and that students of color, particularly Black students, are disproportionately subject to harsh disciplinary action. Studies commissioned by the Civil Rights Project suggest that this over-representation is due to many complex and interacting factors that include racial bias, inequities in resources, over-reliance on IQ and other evaluation tools, pressures of and inappropriate responses to high stakes testing, and an imbalance of power between minority parents and school officials (Losen & Orfield, 2002). When compared to white students, Black students nationwide are nearly three times as likely to be classified as mentally retarded, nearly twice as likely to be identified as having an emotional disturbance, and nearly a third more likely to be diagnosed with a specific learning disability. Disparities were even found between Black and white children of high income and well educated parents (Land & Legters, 2002). Black children represent 16 percent of the school population nationally but 21 percent of the enrollments in special education, 25 percent of those identified by schools as having emotional and behavioral disorders, 26 percent of those arrested, 30 percent of the cases in juvenile court, 32 percent of out-of-school suspensions, 40 percent of youth in juvenile detention, 45 percent of cases involving some form of detention, and 46 percent of the cases waived to criminal court (U.S. Department of Education and Snyder & Sickmund, cited in Osher, Woodruff, & Sims, 2001).

Information reported on Washington and large urban school districts also reflects disproportionate discipline along racial lines. In March 2002 the *Seattle Post Intelligencer* reported discrepancies in Seattle School District in implementing discipline policies across racial groups: "African American students are disciplined at far higher rates than students of other races. Black secondary school students are 2.6 times more likely to be suspended or expelled than students of other races" (Dean). The Harvard project reported that minority students, particularly African American male students, are disproportionately expelled. The authors contend that "zero tolerance" policies related to violence and weapons (required by federal legislation passed in 1994) are often extended to lesser infractions and exacerbate the discrepancies in imposition of suspensions and expulsions on students of color. Some authors attribute these disparities to cultural differences and stereotype. Land & Legters state that "white school personnel may perceive disrespect from Black youth when none is intended." This disciplinary treatment may also convey to students that they are more "deviant and less worthy of education" than their white peers (p. 21).

These trends are reflected in broader society. In Washington, the rate of juvenile arrests is much higher for students of color. While the rates have been declining for all groups the past decade, the rate for Blacks is still more than three times higher than for white youth (Washington Kids Count, 2002).

Teacher Attitudes and Beliefs

Teachers' attitudes and treatment of students impact achievement, and teachers often treat low-income and students of color differently than white middle-class students. Teacher attitudes and confidence in their own professional competence and their attitudes about student ability appear to be mutually reinforcing. Ferguson (in Jencks & Phillips) reports a study that concludes Black students respond more strongly to teachers' beliefs than white students. This suggests that students of color are more affected by negative as well as positive attitudes and treatment of their teachers. Ashton and Webb (1986) and others report differences in teacher perception of and behavior toward low-achieving students. Studies have shown that students' personal characteristics are related to teacher expectations and teacher behaviors (Persell, in Ashton & Webb). From a meta-analysis of 77 studies of teacher expectancies, Dusek and Joseph (cited in Ashton & Webb) concluded that socioeconomic class, race, attractiveness, and classroom conduct of students affect teachers' expectations for student performance.

Ashton and Webb reported that "teachers' expectations about students' ability appear to be the single most influential student characteristic affecting their behavior. If teachers have low expectations of their students' ability to learn, these low expectations will contribute to a low sense of teacher efficacy and lessened effort in teaching the students they believe to have low ability" (p. 14). These researchers also note that low efficacy teachers explained low achievement in terms of the students' failings: these students "lack ability" and "motivation," have "character deficiencies," or "have poor home environments." In contrast, they found that high sense-of-efficacy teachers expressed the importance of developing warm relationships with students and the view that they could take positive actions to avoid problems. High sense-of-efficacy teachers were "more likely to demonstrate to students that they care about them and were concerned about their progress and their problems" (p. 75).

Brophy and Evertson suggest that teachers' sense of efficacy influences their actions toward students and subsequently affects student performance. They speculate that "teachers abandon their roles as adult facilitators with uncooperative students because they are uncertain about their ability to control such students." Consequently, teachers spend more time controlling students and trying to neutralize potential behavioral problems than in teaching (Brophy & Evertson, 1981, cited in Ashton & Webb).

Ferguson reports five conclusions based on a review of many studies on conditions in schools and teacher expectations conducted over the last thirty years (cited in Jencks & Phillips).

- "Teachers have lower expectations for blacks than for whites.
- Teachers' expectations have more impact on black students' performance than on white students' performance.
- Teachers expect less of blacks than of whites because black students' past performance and behavior have been worse. (Ferguson finds no evidence that teachers' expectations differ by race when they are asked to assess children who have performed equally well and behaved equally well in the past.)
- By basing their expectations on children's past performance and behavior, teachers perpetuate racial disparities in achievement.
- Exhorting teachers to have more faith in black children's potential is unlikely to change their expectations. But professional development programs in which teachers actually see disadvantaged black children performing at a high level can make a difference" (p. 29-30).

Many well-meaning school people stress that they are "color blind," that they do not see color when they look at their students. They may emphasize that they treat all students alike, just as they would want their children treated. Although the intentions may be to avoid racism and discrimination, writers in the field of multicultural education counter this perspective. Neither to see nor to acknowledge color is to render the person of color invisible (Howard, 1999).

Inadequate Instruction and Support

Researchers have reported a sort of negotiated order that occurs in some classrooms in which teachers and students have a tacit agreement, essentially "if you don't disrupt the class, I won't bother you." Haberman's pedagogy of poverty describes classroom practice that produces this type of order. These instructional practices, such as giving information, asking questions, giving directions, checking homework, assigning homework, monitoring seatwork, giving tests, reviewing tests, settling disputes, punishing noncompliance can be observed in many impoverished classrooms at all levels. Haberman describes these practices as "certain ritualistic acts" that maintain order by occupying students in routine busy work although leaving them intellectually unengaged (1991).

Other researchers have reported that low achieving students are typically given more routine, highly structured class work focused on low-level intellectual activity. The result of such instruction is that low achieving students continue to fall behind their high achieving counterparts.

- Oakes (1985) contrasts the student behavior required by high school teachers in high track and low track English and math classes. Teachers of high-track classes were more likely "to emphasize such behaviors as critical thinking, independent work, active participation, self-direction, and creativity than were other teachers. At the same time, teachers of low-track classes were more likely than others to emphasize student conformity: students getting along with one another, working quietly, improving study habits, being punctual, and conforming to classroom rules and expectations" (p. 85).

- Darling-Hammond (1997) describes the experiences of students whose teachers are poorly trained. These students "too often sit at their desks for long periods of the day, matching the picture in column a to the word in column b, filling in the blanks, copying off the board. They work at a low cognitive level on boring tasks profoundly disconnected from the skills they need to learn. Rarely are they given the opportunity to talk about what they know, to read real books, to construct and solve problems in mathematics or science" (p. 272).

- Fletcher and Cardona-Morales (1990) report research that suggests that instructional inadequacies or "pedagogically induced learning problems" may account for poor academic achievement and low motivation among many Hispanic students. They noted that several studies show classroom instruction in schools serving predominantly Hispanic students "tends to be whole-class instruction with students participating passively (i.e., watching or listening) in teacher-assigned and teacher-generated activities. Teachers also spend more time in these classrooms explaining things to students rather than questioning, cueing, or prompting students to respond. Teachers were not often observed encouraging extended student responses or encouraging students to help themselves or help each other." In these classrooms, teachers typically used direct instruction to teach to the whole class at the same time and they controlled all of the classroom discussion and decision making (cited in Padron, Waxman, and Rivera, p. 70-71).

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In conclusion, this chapter has summarized some of the potential root causes and conditions that tend to perpetuate the achievement gap. As has been demonstrated through the professional and research literature, American public schools were not created to provide equitable and excellent education for all children. The schools reflect both the white dominance in society and the middle-class culture. Schools themselves have deeply embedded practices that provide different educational experiences for children of color and poor children. Personal and family attributes may impact student achievement as well in relation to the conditions found in society and in schools as microcosms of that society. Although these conditions help explain the challenges inherent in closing the achievement gap, the more important issue at hand is what can be done individually and collectively to decrease and eliminate the achievement gap. Promising steps are examined in the following chapter.

Strategies for Closing the Gap

Chapter 4

The crux of the discussion on the achievement gap is to answer the question of what can be done to reduce and ultimately eliminate the achievement gap. This chapter summarizes the literature by suggesting elements with potential to increase student learning, particularly for students of color and poverty. The elements are selected because they appear to be within the sphere of influence of schools and classrooms. In the research and professional literature, there is no lack of suggested remedies, such as reorganizing schools, equalizing resources, privatizing schools, "beefing up" graduation requirements, changing rules for teacher certification, and imposing accountability with incentives and consequences based on state test scores. Although the importance of system-level factors cannot be denied, immediate action needs to be taken by those in direct contact with students—principals, teachers, and parents—if the achievement gap is to be closed in a timely manner.

In emphasizing higher achievement for students of color and in poverty, the literature discussed in this chapter reflects the importance of the following elements: beliefs and attitudes, opportunities to learn, cultural responsiveness, effective instruction, and family and community involvement. When embraced fully with sensitivity, courage, and perseverance, these elements make a difference for students. The elements discussed in this paper are embedded in the Nine Characteristics of High Performing Schools identified by Washington school improvement specialists from a review of more than twenty studies (see Appendix D).

Changed Beliefs and Attitudes

The importance of beliefs and attitudes of teachers as well as parents, families, and students themselves has been well documented in research. The literature emphasizes teacher expectations, caring, efficacy, and persistence. A teacher's perception of student performance is particularly critical for students of color. Therefore, beliefs and attitudes are highlighted here. These elements are also embedded in three of the Nine Characteristics: clear and shared focus, high standards and expectations for all students, and supportive learning environment.

Caring

The importance of caring about all students, but in particular students of color and students in poverty, has been explored through a number of research studies. Genuine caring values the individual and conveys belief in their capacity to learn. Caring entails listening sincerely to students, knowing something about the students and their lives, and developing positive relationships with them. Explicit caring creates the relationships, the "bonds," necessary to ensure learning.

Delpit (1995), Gay (2000), Comer (2001), Noddings (1992), Wilson and Corbett (2001), and Darling-Hammond (1997) are among the authors who have discussed this essential quality. Research suggests, according to Delpit, that "children of color value the social aspects of an environment to a greater extent than do 'mainstream' children, and tend to put an emphasis on feelings, acceptance, and emotional closeness. Research has also shown that motivation in African-American children from low socioeconomic groups is more influenced by the need for affiliation than for achievement" (p.140). Gay expands the notion of the kind of caring needed in culturally responsive teaching to close the achievement gap. "Teachers demonstrate caring for children as students and as people. This is expressed in concern for their psycho-emotional well-being and academic success; personal morality and social actions; obligations and celebrations; communality and individuality; and unique cultural connections and universal human bonds… Students, in kind, feel obligated to be worthy of being honored" (p. 46). Comer reinforces the need for caring teachers. In developing his model for improving education for low-achieving, inner-city children in elementary schools in New Haven, Connecticut, he emphasized that children learn from people they bond to. Noddings "emphasizes caring that demonstrates confirmation of the individual in the educational process through understanding of the students' perspectives and experiences. The attitude that drives this kind of caring 'accepts, embraces, and leads upward. It questions, it responds, it sympathizes, it challenges, it delights'" (Noddings cited in Gay, p. 48).

Gay summarizes several stories to illustrate classrooms that are marked by caring in combination with high expectations. In these classrooms students are held accountable for their learning and their behavior. The teachers are described as demanding but they are also "facilitative, supportive, and accessible, both personally and professionally" (p. 50). She reports a study by Kleinfeld, who describes effective teachers as "warm demanders." Such teachers "created classroom climates of emotional warmth; consistently and clearly demanded high-quality academic performance; spent time establishing positive interpersonal relationships between themselves and students, and among students; extended their relationships with and caring for students beyond the classroom; and communicated with students through nonverbal cues, such as smiles, gentle touch, teaching, and establishing a 'kinesthetic feeling of closeness'" (Kleinfeld, cited in Gay, p. 50).

Students themselves attest to the importance of caring teachers. In interviews of middle school students, Wilson and Corbett found students wanted teachers who cared about them enough to "push" them to make sure their work was done and by doing so to convey their value as learners.

Darling-Hammond describes school organizational structures that support caring relationships. These structures include student groupings and teacher assignments that personalize the educational setting (e.g., "looping," a concept where teachers stay with their students for multiple years), small schools, interdisciplinary clusters, family or advisory groups, and school environments that promote respect and caring. She cites a study of 820 high schools that found schools that "personalized education and developed collaborative learning structures for adults and students produced significantly higher achievement gains that were also much more equitably distributed" (Lee & Smith, 1995, cited in Darling-Hammond, p. 135-136).

Expectations

As noted in the previous chapter, the concept of teacher expectations has been researched thoroughly over the past two decades, and there is now little debate about the impact of teacher expectations on student achievement (Good and Brophy, 2000; Bamburg, 1994; Ferguson, 1998). Professional development programs have been created to help demonstrate this relationship and to help teachers examine their practice in order to raise expectations for student learning. Good and Brophy show how breaking the cycle of low expectations will help increase both teacher and student perceptions of student capacity to learn.

Because teachers are in charge of their classrooms, they have power over students. They decide who will participate, how, when, where, and in what. These decisions reflect teacher attitudes and expectations. "Students who are perceived positively are advantaged in instructional interactions. Those who are viewed negatively or skeptically are disadvantaged, often to the extent of total exclusion from participation in substantive academic interactions" (Gay, p. 53). Beliefs and attitudes may be difficult to change; behavior, however, can change. Teachers, individually and collectively in a school, can make a commitment to act in ways that ensure students achieve.

Ferguson (in Jencks & Phillips) writes that "What teachers communicate to students about ability is important because positioning in the hierarchy of perceived ability has social significance for both individuals and groups." He stresses that the "more inviting and responsive instruction is to children's own efforts to improve, the less teachers' initial perceptions and expectations will predict later success" (p. 300-301). He illustrates the point using the instructional strategy "wait time" in questioning students. When teachers provide students more time to answer questions, students respond positively. When this happens, the performance of students of color relative to whites improves, and teacher expectations change as well.

As noted in an earlier chapter, students of color and in poverty at some schools and districts have shown much improvement. The sharing of best practices from these schools and districts with higher levels of minority improvement can help others see what is possible and raise expectations.

Efficacy

Teacher expectations and sense of professional efficacy are interrelated (Gay, p. 60). Teachers' sense of efficacy is the degree of confidence and belief in their own capacity to succeed in teaching children. Teachers may have a high or low sense of efficacy, or effectiveness. According to research by Ashton and Webb (1986), a teacher's sense of efficacy has an impact on student achievement—those with a high sense of efficacy have a positive impact on students. Teachers with low sense of efficacy do not feel competent to teach low-achieving students. Low sense of efficacy negatively affects a teacher's relationship with students of color and poverty. Efficacy influences the choices that teachers make in their classrooms, in the activities, instructional materials, and disciplinary methods they use. If teachers do not feel competent to teach some students, they may ignore them (justifying doing so by feeling the students cannot be taught) or assign low-level learning activities, such as worksheets, to occupy students without challenging them.

Teachers can increase their level of confidence and certainty in teaching students through professional development and through opportunities to observe and learn with other teachers. Rosenholtz (1989) found that teachers in "moving schools," those with a positive professional working environment, had a positive impact on student achievement. Teachers in these schools, who were encouraged to learn together, developed more assurance about their instructional capacity. Professional development that increases knowledge and skill can increase teachers' confidence in their capacity to meet student needs. The literature on professional learning community describes learning and working environments that enhance teacher collaboration, knowledge, and confidence as educators.

Persistence

Persistence or perseverance is another quality that benefits low-achieving students. Gay (2000) describes teachers who are "tough" and "take no stuff" and who were respected and revered by their students. Good teachers, according to students in one study, are "respectful of them, care about them, provide choices, and are tenacious in their efforts to make the information taught more understandable for them" (Haney, cited in Gay, p. 49). Middle school students interviewed by Wilson and Corbett (2001) emphasized the importance of their teachers who never quit or give up on them. Effective teachers adhered to a "no excuses" policy, that there were no good reasons why a teacher would give up on a child. These students wanted to be in classrooms where "(t)he teachers 'stayed on students' to complete assignments" and the teacher went out of his or her way to provide help (p. 64).

Persistence is connected to teacher confidence and feelings of efficacy. Teachers with strong self-confidence are more likely to use a greater variety of teaching strategies and to be more persistent in their efforts to facilitate learning. They spend more time preparing for instruction and engage in professional development activities to improve their teaching. They also hold themselves and their teaching accountable for the achievement of students, including those who have difficulty learning (Miller, cited in Gay).

Finally, teachers need to reflect and analyze their own practice. Teachers may not be conscious of inequities in their behavior toward students. Using video taping, asking peers to observe and mirror back what they see, or asking students for their perspectives on classroom activities are ways to collect data that can provide insight into teacher instruction and expectations.

Cultural Responsiveness

Learning begins with the learners' frame of reference, so culture cannot be separated from schooling. Teachers provide instruction from the framework of their own culture and beliefs; students learn within the context of their culture. Teachers may be somewhat oblivious of the degree to which classroom routines and rules reflect white, middle-class culture and may even assume that the culture of schools is more universal than it is. Unwittingly, teachers may exacerbate the difficulties experienced by minority and poor students as they expect students to fit the molds of school without necessarily making the school norms explicit.

The research and professional literature emphasizes the importance of acknowledging the legitimacy of the cultural heritage of different groups and connecting students' learning experiences with their foundational knowledge. Principles of learning reinforce the importance of using a child's background as a foundation for teaching her or him. Students learn by building new knowledge on the foundation of knowledge they possess. Teachers need to activate a child's prior learning. Therefore, using the context of a child's culture is important and basic, not an add-on. Cultural responsiveness requires more than good intentions. Educators must have the pedagogical knowledge and skills, as well as courage, to change routines and practices to educate students of color and poverty more successfully. Many researchers provide guidance in creating classrooms and schools to better respond to students from diverse backgrounds (Antunez, DiCerbo, & Menken, 2000; Feng, 1994; Goodwin, 2000; Kim & Yeh 2002; Lewis with Palk, 2001; Lockwood & Secada, 1999; Noguera, 1999; Pang & Cheng, 1998.)

Gay defines culturally responsive teaching as "using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them. It teaches to and through the strengths of these students." Gay characterizes culturally responsive teaching by the following:

- "It acknowledges the legitimacy of the cultural heritages of different ethnic groups, both as legacies that affect students' dispositions, attitudes, and approaches to learning and as worthy content to be taught in the formal curriculum.
- It builds bridges of meaningfulness between home and school experiences as well as between academic abstractions and lived sociocultural realities.
- It uses a wide variety of instructional strategies that are connected to different learning styles.
- It teaches students to know and praise their own and each other's cultural heritages.
- It incorporates multicultural information, resources, and materials in all subjects and skills routinely taught in schools" (p. 29).

Delpit (1995) asserts that there are five aspects of the "culture of power" which are relevant for schools and classrooms.

- "Issues of power are enacted in the classroom." (e.g., teacher over students, power of publishers, curriculum developers, the state; the power of schools to determine an individual's future)
- "There are codes or rules for participating in power; that is, there is a 'culture of power.'" (e.g., ways of talking, dressing, interacting)
- "The rules of the culture of power are a reflection of the rules of the culture of those who have power." (In other words, success in school is "predicated upon acquisition of the culture of those who are in power.")
- "If you are not already a participant in the culture of power, being told explicitly the rules of that culture makes acquiring power easier."
- "Those with power are frequently least aware of – or least willing to acknowledge – its existence. Those with less power are often most aware of its existence" (p. 26).

Educators also need an understanding of the impact of poverty on the lives and learning of children. Payne's (1998) theory of a "culture of poverty" provides insight about language, behavior, and attitudes associated with children who experience generational poverty. Her work provides concrete suggestions to help educators understand and work with poor families.

To implement culturally responsive classrooms, teachers require different knowledge and skills than most currently possess. Professional preparation programs at institutions of higher education must be reviewed and restructured to infuse coursework and practicum with culturally responsive content and skills (Chisholm, 1994; Darling-Hammond, French, & Garcia-Lopez, 2002; Villegas & Lucas, 2002). Existing teachers will require a great deal of professional development of a different type than they generally receive. To respond effectively, teachers first need to have the awareness and desire to create culturally responsive classrooms. Schools can use faculty study groups as a vehicle for increasing professional sensitivity and expertise. The literature cited in this paper can be used for such study. To become more culturally responsive, teachers can assess their classroom materials and practices to determine how responsive their teaching is. Abandoning a "deficit orientation" that focuses on what students lack, rather than on the assets they possess, is an immediate step. Adults must explicitly honor students and their heritages. Thoughtful, active listening will go along way in convincing students of color and low-income students of their value in the educational setting.

Greater Opportunities to Learn

In the research and professional literature, opportunities to learn are defined in a variety of ways. One framework for opportunity to learn includes content coverage, content exposure, content emphasis, and quality of instruction (Stevens, in Williams, 1996). Access to resources beyond the school has also been added to definitions of opportunities to learn. Because the focus of this paper is on the areas within the sphere of influence of schools and classrooms, the following aspects are discussed in this section: extended learning opportunities, access to rigorous curriculum, and involvement in enriched and varied programs. The latter would include access to programs such as the arts, extra-curricular activities, and other educational endeavors often reserved for gifted and talented classes or for those who can purchase them.

Extended Learning Time

Many strategies to improve student learning extend the amount of time students have available for school. These include before and after-school and summer learning opportunities and modified school calendars. Changes in the structure of the school-day also increase learning time. Examples include reducing or eliminating pull-out programs which interrupt regular instructional time, increasing the focus on learning during scheduled class time by reducing extraneous activities, and scheduling longer blocks of time for classes to reduce fragmentation and provide for more in-depth, hands-on study. Modifying the school year provides continuous learning opportunities by rearranging the school calendar to shorten summer vacation and to intersperse breaks through the year. The breaks (intersessions) create opportunities for students to receive supplemental instruction and enrichment. All of these strategies have potential for increasing opportunities to learn and, consequently, to improve student achievement. Another strategy is increasing kindergarten programs to full-day, although this strategy is more difficult to implement because of funding constraints. Title I and other compensatory program funds can be used to extend learning time.

Rigorous Curriculum

Public expectations for American schools are probably as high or higher than they have ever been. The standards movement emphasizes educational goals to include rigorous content that all students are expected to learn. This expectation requires a shift in the type of curriculum that is often provided for students of color and poverty. Haycock (2001), Oakes (1984), Haberman (2001), Gay (2000), Good and Brophy (1984), Goodlad (1984), and Darling-Hammond (1997) are among the educational researchers who have reported the inequities suffered by low-status children and low-achieving students. These children are often in low-curriculum tracks that have been described by Goodlad as emotionally flat and intellectually dull. The curriculum may be superficial, below-grade level content; and low-achieving students may be required to do little thinking during their classes. To reduce the achievement gap, students of color and poverty must have access to cognitively rich, relevant curriculum content that is appropriate for their grade level. An analysis of Title I schools conducted for the Department of Education concurred that students achieved more growth in mathematics if their teachers spent comparatively more time in explorational activities such as group problem solving. In reading, students performed better when teachers spent less time on basic instruction, such as filling out worksheets (U.S. Dept. of Education, 2001).

Darling-Hammond cites a number of research studies that show the influence of curriculum on student achievement and credits the following researchers: "Research indicates that when students of similar achievement levels are exposed to more and less challenging materials, those given the richer curriculum systematically outperform those placed in less challenging classes (Alexander & McDill, 1976; Oakes, 1985; Gamoran & Berends, 1987). Achievement differences among students of different racial and ethnic groups in such areas as mathematics, science, and foreign language are strongly related to differences in course taking (Pelavin & Kane, 1990). For students who have the opportunity to take similar courses, achievement test score differences by race or ethnicity narrow substantially (College Board, 1985; Jones, 1984; Jones, Burton, & Davenport, 1984; Moore & Smith, 1985)" (p.270).

Several studies also report the importance of meaningful, challenging content in improving achievement levels of all students, including historically underachieving students. A study conducted by Newmann, Marks, and Gamoran (1995) included more than 2,000 students in 23 restructured schools. These researchers found "much higher levels of achievement on complex performance tasks in mathematics and social studies for students of all backgrounds who experienced what these researchers termed 'authentic pedagogy'—instruction focused on active learning in real-world contexts that calls for higher-order thinking, consideration of alternatives, use of core ideas and modes of inquiry in a discipline, extended writing, and an audience beyond the school for student work. In addition, a recent analysis of data from the 1988 National Educational Longitudinal Surveys found that students in restructured high schools where 'authentic instruction' was widespread experienced much greater achievement gains on conventional tests" (cited in Darling-Hammond, p. 108).

While there may be good reasons for students to take different courses in their school experience, in particular in high school, Haycock argues that college preparatory courses should be the default curriculum. Darling-Hammond suggests, "The principle schools should follow…is that students should be offered access to the same intellectually challenging coursework for most of their school careers and that different course taking should be based on what they actually know, are willing to tackle, and want to learn, rather than on presumptions about what they can or ought to learn" (p. 128).

Teachers, counselors, administrators, and parents all have a role in encouraging and even "pushing" students of color and poverty to take rigorous courses that deepen their understanding and that broaden their life choices. However, simply enrolling historically low-achieving students into rigorous college preparatory courses or requiring advanced skills will not succeed in reducing the achievement gap. Appropriate and persistent instruction and personal encouragement by "warm demanders," couched in caring and supportive classroom environments, must accompany the increase in challenging curriculum for students of color and poverty to thrive.

Enriched and Varied Programs

Opportunities to learn include enrichment programs, the arts, project learning, and extracurricular activities. Students of color and poverty are underrepresented in many of these programs and activities. Research has provided evidence of the relationship between student participation in extra- and co-curricular activities and success in school and in later life (NCES, 1995; National Federation of State High School Associations, 2002; Camp, 1990; Holloway, 2002). Intentional outreach to involve students of color and poverty in clubs, sports activities, academic associations, and other school-based activities benefits individuals through the learning that occurs, through service to the school and community and through the deep relationships that grow among students and between adults and students in a school. A greater sense of school community also emerges.

The authors of *Diversity Within Unity: Essential Principles for Teaching and Learning in a Multicultural Society* state that "significant research supports the proposition that participation in after-school programs, academic associations like language clubs, and school-sponsored social activities contributes to academic performance, reduces high school drop-out rates and discipline problems, and enhances interpersonal skills among students from different ethnic backgrounds" (Banks, et al, 2001, p. 8). The authors also cite studies that suggest that informal programs increase the potential for bridging home and school cultures. Student membership in school-wide activities that transcend individual groups increase positive intergroup relationships. Opportunities for such group involvement can reduce prejudice when students share experiences, interests, and identity.

Effective Instruction

Research studies have provided increasing evidence that "academic achievement is related to teachers' ability to connect curriculum to learners' experiences and frames of reference" (Darling-Hammond, p. 126). For the achievement gap to disappear, classroom instruction must be highly effective with all children. Teachers must incorporate findings from recent research in their teaching of traditionally low-achieving students. The "new science of learning" (Bransford, et al., 2000) provides insights into effective teaching practices that have potential for increasing the learning of students of color and low income students.

Effective instruction takes into account three of the Nine Characteristics: (1) curriculum, instruction, and assessment aligned with standards, (2) frequent monitoring of learning and teaching, and (3) supportive learning environment. The literature on the achievement gap specifically describes instructional practices that often relegate students of color and poverty to low-level content that is focused on basic skills and activities that emphasize drill, memorization, recitation, and work sheets. This approach to instruction implies a theory that these students must first master low-level work before they can engage in thinking, understanding, and applying what they learn. The research reported here questions this assumption and supports the teaching of advanced skills along with basic skills. The concepts of *teaching for understanding, teaching for meaning*, and *authentic pedagogy* include strategies that dramatically improve performance of students who are traditionally underachieving (Wiske, 1998; Knapp, et al, 1995; Newman & Associates, 1996). These instructional strategies are described below.

Herbert Simon notes "…The meaning of 'knowing' has shifted from being able to remember and repeat information to being able to find and use it" (cited in Bransford, et al., p. 5). To use information, one must have a thorough understanding of the concepts and know when their use is appropriate. The new science of learning emphasizes the importance of understanding. "The emphasis on understanding leads to a focus on the processes of knowing" (p. 14). Three key findings, according to the National Research Council report, emerge from the research which have strong implications for teaching (p. 14–21):

1. "Students come to the classroom with preconceptions about how the world works. If their initial understanding is not engaged, they may fail to grasp the new concepts and information that are taught, or they may learn them for purposes of a test but revert to their preconceptions outside the classroom."

2. "To develop competence in an area of inquiry, students must: (a) have a deep foundation of factual knowledge, (b) understand facts and ideas in the context of a conceptual frame work, and (c) organize knowledge in ways that facilitate retrieval and application."
3. "A 'metacognitive' approach to instruction can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them."

These core learning principles have profound implications for teaching and teacher preparation.

1. "Teachers must draw out and work with the preexisting understandings that their students bring with them."
2. "Teachers must teach some subject matter in depth, providing many examples in which the same concept is at work and providing a firm foundation of factual knowledge."
3. "The teaching of metacognitive skills should be integrated into the curriculum in a variety of subject areas."

According to this research, when these three "principles of learning" are incorporated into teaching, student achievement improves. These principles reinforce a vision of effective instruction that builds on a student's prior knowledge, connects with their culture and homes, emphasizes active involvement, and focuses on understanding and meaning. Students are not passive receivers of knowledge transmitted by teachers but are full participants in their own learning.

Knapp, Shields, and Turnbull (1995) found that methods used with normally progressing students worked equally as well with low-achieving children from a variety of backgrounds that included a mix of cultures and social classes. Their findings were based on a study conducted over two years in 140 classrooms in 15 elementary schools in six districts in three states. These successful methods, characterized as "teaching for understanding," actively engaged students as "meaning makers," made clear the relationship of the parts to whole of the content they were learning, and connected new learning to the child's existing body of knowledge. These characteristics align with the principles outlined by the National Research Council noted above and run counter to the notion that low-level skills need to be mastered before thinking skills can be taught. These researchers write that effective teachers did not neglect the basic skills; they taught both basic and advanced skills together.

Another major study conducted over five years by a team from the Center on Organization and Restructuring of Schools (University of Wisconsin) provides evidence of improved student achievement across racial and economic boundaries. In this study of about 130 elementary, middle, and high school mathematics and social studies classrooms, researchers identified standards for high quality intellectual performance and for teaching that facilitates this type of performance. (Another report of this study was referenced above in the curriculum discussion.) These standards reinforce rigorous and challenging content, active engagement of students in their learning, and application of the learning beyond the classroom. Briefly, there are three standards: Construction of Knowledge involving high order thinking; Disciplined Inquiry involving deep knowledge and substantive conversation; and Value Beyond School which means connections to the world beyond the classroom. Use of the approach called "authentic pedagogy" brought equal achievement benefits to students of different gender, socioeconomic status, race, and ethnicity (Newmann & Wehlage, 1995).

In support of content standards and aligned reform curricula, Schoenfeld (2002) provides a review of the experience of Pittsburgh School District. The district's decade-long effort to align curriculum, professional development, and assessment has benefit for all students. He states that racial differences in performance can be reduced through high quality instruction.

Characteristics of high quality instruction have been described by Haberman (1991) and Marzano, Pickering and Pollock (2001) as well as other researchers (Cotton, 2000; DePorter, Reardon, & Singer-Nourie, 1999; Good & Brophy, 2000; Means, Chelemer & Knapp, 1991; McTighe & Wiggins, 1998; Zemelman, Daniels, & Hyde, 1998).

- Haberman describes exemplary pedagogy as reflecting these features: Students are actively involved with issues that are important to them. Students are developing understanding of differences among humans. Students are being helped to see major concepts, big ideas, and general principles not merely isolated facts. Students have real choices, not just preferences, in what they study. Students are involved in applying big ideas in their daily lives. Students are asked to think about ideas in different ways that question assumptions, to relate new ideas to what one knows, and to apply ideas. Students review, redo, and polish their work. Students reflect on their lives, beliefs, and feelings and how they come to them.

- Marzano, Pickering, Pollock describe instructional strategies that have a good track-record for improving student performance. They also provide guidance for implementing these "research-based strategies." They include the following topics:

    - Identifying similarities and differences
    - Summarizing and note taking
    - Reinforcing effort and providing recognition
    - Homework and practice
    - Nonlinguistic representation
    - Cooperative learning
    - Setting objectives and providing feedback
    - Generating and testing hypotheses
    - Cues, questions, and advance organizers.

Instruction as described above requires a great deal more from teachers than the "traditional transmission" model and cannot be prescribed through "teacher proof" curriculum and teacher editions of textbooks. Many teachers are meeting the challenges; their work has provided the evidence referenced by these researchers. Other teachers will need support and professional development to hone their instructional knowledge and skill in order to implement the practices suggested above. However, the achievement of students of color and poverty would increase demonstrably if high quality instruction for deep understanding were in place in all classrooms.

Ferguson (1999) does not believe that different instructional methods or curricula are required for different types of students. He notes that "this is not inconsistent with the view that schools should pay special attention to race, ethnicity, and social class, so that students, teachers, and parents from disparate backgrounds might understand one another and collaborate more effectively. Further, it makes sense that some teaching styles and school environments are better suited to children from particular backgrounds. One common hypothesis is that all children learn more when their home and school environments are well matched – that is, when there is cultural congruence" (in Jencks & Phillips, p. 346).

Indeed, a number of researchers have made suggestions regarding instruction that appears to work well for students of color. These, as indicated in the following summaries, generally do align with the principles described above. (Other authors who address this topic are Antunez, DiCerbo, & Menken, 2000; Costantino,1999; Gay, 1999; NWREL, no date.)

- Padron, Waxman, & Rivera (2002, in Stringfield & Land, p. 73) found five teaching practices that succeed with Hispanic students. These practices include culturally responsive teaching, cooperative learning, instructional conversation, cognitively guided instruction, and technology-enriched instruction. These studies also support instruction that is meaningful and responsive to students' needs and are linguistically and culturally appropriate. These practices are reflected in the definitions of high quality instruction above and reinforce the need for teaching for understanding, not only repetitive drill on low-level skills.

- Thomas and Collier (1997) present key findings of their study on effective schooling for language minority students. They advocate for instruction that is "cognitively complex on-grade-level academic instruction through students' first language for as long as possible (at least through grade 5 or 6) and cognitively complex on-grade-level academic instruction through the second language (English) for part of the school day in each succeeding grade throughout students' schooling" (p. 15). They also stress the "use of current approaches to teaching the academic curriculum through two languages." These approaches may often include cooperative learning strategies, thematic units, using multiple intelligences, and academic tasks relevant to "students' personal experiences and to the world outside the school." Last, these researchers support a "transformed sociocultural context for language minority students" that reflects an enrichment rather than remediation orientation (p. 16).

- Delpit (1995) advocates teaching students of color both skills and processes. She argues that not providing students with the basics of standard language undermines students who must be taught the "codes needed to participate fully in the mainstream of American life." She is not suggesting skill sheets of "decontextualized subskills" but that students be taught the "useful knowledge of the conventions of print while engaging in real and useful communicative activities" (p. 44).

Delpit also emphasizes the importance of involving the adults who share the children's culture in considering what is appropriate instruction for them. The involvement of families and community in improving the achievement of students of color and poverty is developed in the following section.

Family and Community Involvement

The literature is replete with studies that reinforce the importance of family and community involvement in educating young people. The literature expands the notion of parental involvement to include more than attendance at school meetings and chaperoning activities. The research studies illustrate the influence on student achievement when families encourage learning in their homes, express high but reasonable expectations, and support their children's education by becoming involved in the school and community. Summaries of research studies suggest that when families and schools cooperate, students achieve higher grades and test scores. Schools and communities also benefit from good working relationships between families and schools. Communities can support students of color and poverty by enhancing learning opportunities for students outside regular school hours. These experiences can include a range of activities and programs.

In *The Family is Critical to Student Achievement*, Henderson and Berla (1994) synthesize 66 studies, reviews, reports, analyses, and books. They identify three conditions that have profound influence on a student's achievement in school, even more impact than income or social status. These express the need for families to (a) create a home environment that encourages learning; (b) express high (but not unrealistic) expectations for their children's achievement and future careers; and (c) become involved in their children's education at school and in the community. They write that when taken together, the studies "strongly suggest that when schools support families to develop these three conditions, children from low-income families and diverse cultural backgrounds approach the grades and test scores expected for middle-class children" (p. 1).

The researchers detailed how both students and schools benefit from closer cooperation with families and communities (p. 1). Students experience the following benefits:

- Higher grades and test scores
- Better attendance and more homework done
- Fewer placements in special education
- More positive attitudes and behavior
- Higher graduation rates
- Greater enrollment in postsecondary education.

Schools enjoy the following benefits by developing good working relationships with families:

- Improved teacher morale
- Higher ratings of teachers by parents
- More support from families
- Higher student achievement
- Better reputations in the community.

The importance of family involvement is reinforced by a number of other studies. Henderson and Berla report that across the programs they studied, "student achievement increased directly with the duration and intensity of parent involvement." They note that some studies "strongly suggest that programs designed with extensive parent involvement can boost low-income students' achievement to levels expected for middle-class students. In fact, it appears that the more programs take on a 'partnership' relationship with families, the more successful they are in raising students achievement to national norms" (p. 6-7).

These authors cite Comer's work as another reason to promote a strong connection between schools and the families of poor, minority children. Comer (1988) states, "The failure to bridge the social and cultural gap between home and school may lie at the root of the poor academic performance of many of these children" (cited in Henderson and Berla,1995, p. 49). Therefore, "if children know that their parents and teachers understand and respect each other, that they share similar expectations and stay in touch, children feel comfortable with who they are and can more easily reconcile their experiences at home and school" (p. 11).

Cummins (1986) also emphasizes the importance of family and community involvement and the relationships between school and community in empowering students to learn. He writes that students from 'dominated' minority groups are either empowered or disabled by their interactions with educators in the school. Hence, educators face the challenge of empowering their students, even in the face of society's pressures to maintain the status quo. Cummins identified four characteristics of "empowering" schools: (1) students' language and culture are incorporated into the school program; (2) family and community participation are encouraged as essential to children's education; (3) children are encouraged to use language actively and to gain knowledge for their own use; and (4) educators serve as advocates for students rather than labeling students as the problem.

Effectively involving families and communities requires different perspectives than traditionally held. Epstein (1997) developed a framework that identifies six types of involvement that strengthen the school-family-community connection. The framework recognizes that traditional views of parental involvement, e.g. PTA membership, room "mother," chaperone, school meetings, are too limiting. The six types of involvement in the framework are as follows (p. 8-10):

- **Parenting:** Provide for the health and well being of children as well as an environment that encourages learning. Schools may provide training and information to help families support their children's development.
- **Communication:** Reach out to families to provide information about school and specifically the students' progress. Schools must insure two-way communication so educators listen carefully to family concerns.
- **Volunteering:** Invite parents to participate at school. Schools increase participation by creating flexible schedules and providing a range of opportunities that tap into parent/family interests and talents.
- **Learning at home:** Guide and support family in helping children study at home.
- **Decision-making:** Involve families and the community in the decision-making processes at school, including development of a vision for the school.
- **Collaboration with the community:** Help families connect with community support services as well as cultural and social programs.

Communities can and should take an active role in reducing the achievement gap as well by providing opportunities for students of color and poverty to participate in a range of activities and programs. Clark (1990, in Henderson & Berla) looked at successful "disadvantaged" students to determine what conditions might explain differences in achievement among students with similar backgrounds. He found that "high-achieving children from all backgrounds tend to spend approximately 20 hours a week in constructive learning activities outside of school. Supportive guidance from adults is a critical factor in whether such opportunities are available" (p. 41).

Clark conducted his research with 12th grade African-American students in Chicago and with Hispanic, Asian, African-American, and Anglo elementary, middle, and high school students in Los Angeles. He lists some of the activities in which children were engaged, ranging from professionally guided learning activities, homework, leisure activities such as reading, writing, conversation, museums, to recreational activities and health and fitness types of activities. He determined that those assisting children in their learning met four indicators:

- Time spent on a particular learning task
- Opportunity to become actively involved in thinking while doing the task
- Extent of supportive input by knowledgeable adults and peers
- Standards, expectations and goals that surround the activity.

Clark also emphasized the role and responsibility that adults in schools and communities have as models and mentors for children (in Henderson & Berla).

Families from different cultures may perceive their role in relation to schools differently than white middle-class families. Schools and educators, therefore, have a responsibility to initiate contact with families and to invite their participation in ways that value and "empower" them to join in the decision making regarding their children's education. In promoting cross-cultural communication, Delpit contends that "it is those with the most power, those in the majority, who must take the greater responsibility for initiating the process. To do so takes a very special kind of listening, listening that requires not only open eyes and ears, but open hearts and minds..." (p. 46). Thus, practitioners have the challenge to initiate meaningful involvement.

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This chapter has addressed five elements, synthesized from the research and professional literature, that appear to have considerable potential to impact student achievement positively: changed beliefs and attitudes, cultural responsiveness, greater opportunities to learn, effective instruction, and more family and community involvement. These elements were described and suggestions were made for practices that can be implemented in classroom and school settings. Many of these suggestions will require ongoing, school-based professional development embedded in the day-by-day work of educators. At a minimum, coherent and intentional actions need to be taken to create and improve the conditions needed to close the gap and help all students meet high standards.

Implications

Understanding the achievement gap and developing appropriate responses are complex endeavors. This paper attempts to address three points: a definition of the achievement gap and a description of the size of the gap in the nation and in Washington, root causes and perpetuating conditions, and strategies for reducing and eliminating the gap. Some have said the gap will always be with us. However, the low achievement of students of color and students in poverty cannot be assumed as inevitable and cannot be tolerated in a democratic society. Many studies stress that student achievement is improving in many low-income schools and districts across the nation where students of color are the majority. Many researchers now assert that if students can learn in one context, then those in another, similar context can learn as well.

This paper has also provided a summary of student achievement in Washington. Although scores are improving for all groups of students tested, large gaps still exist. Students of color and low-income students score lower on the WASL and ITBS than do white and more affluent students. Reasons for the chronic achievement gap may be linked to economic, personal, historical, socio-cultural, and educational system factors as noted in chapter 3. Given the complexities of each of these reasons, a comprehensive and coordinated response that is sustained over a long period of time will be needed to reduce and ultimately to eliminate the achievement gap. Chapter 4 lists strategies noted in the literature that educators and others can implement individually and collectively to help reduce the gap. These strategies—related to attitudes and beliefs, cultural responsiveness, opportunities to learn, effective instruction, and family and community involvement—can be used to meet the challenge. However, implementing these strategies alone will not be enough to eliminate the gap.

Next Steps

To successfully close the achievement gap, action on several fronts must occur simultaneously. Some changes necessary to eliminate the achievement gap need to be made at the broader system level; others need to be made by individuals, schools, and communities. All stakeholders will need to do more learning and reflecting about these root causes and potential solutions.

Changes in State and District Systems

A *collective, political will* must be generated to make closing the achievement gap a goal and to muster the resolve and resources to make the needed changes. The state, districts, and schools must address achievement gap concerns as part of their vision and focus. This will help garner the collective support for improving the educational experiences for students of color and poverty.

Closer collaboration among stakeholders is also needed. One national agency—the NAACP—has urged schools and communities to engage in partnerships to eliminate racial disparities through initiatives such as increased resources, teacher quality, access to college preparatory curriculum, and reduced class sizes. Various Washington stakeholder groups, including OSPI, several state agencies, professional organizations and some school districts, are currently involved in activities related to addressing the achievement gap. The Federal Way school district, for example, has taken a systemic approach by establishing an

Office of Equity and Achievement and developing a comprehensive plan with short-term and long-term goals to close the gap. All Washington stakeholders will need to collaborate with one another to discuss their work and increase their understanding of each other's activities. (Appendix E has more information about the activities of these groups; Appendix F provides a sample of district case studies.)

State and district systems need to *reallocate staff and financial resources* in ways that will help close the gap. Students of color and poverty need to have highly qualified teachers, not the newest and least prepared. Financial resources need to be raised and allocated so that those with the greatest need are well served.

Given the importance of instruction on student learning, steps to *enhance teacher knowledge and skills* need to be taken. Teacher and administrator preparation and inservice programs need to strengthen training on diversity and cultural responsiveness as well as effective instructional strategies. Institutions of higher education need to review and restructure professional education coursework and preservice experiences to provide appropriate content and skills.

Changes By Individuals, Schools, and Communities

System changes often take longer to implement than actions at the classroom, school, and community level. The following actions need to be taken at these levels as soon as possible.

Changing Attitudes and Beliefs Changes in attitude and beliefs evolve over time. Expectations for changed behaviors may help shift attitudes in regard to students of color and poverty and their capacity to meet high standards. Sharing evidence of successful student performance supports high expectations and belief in the capacity of students to perform well. Agreements can be reached, even at the school level, to ensure students of color and in poverty have well qualified, caring teachers.

Providing Access to Rigorous Curriculum A school can examine internal class and teacher assignment procedures and make changes to ensure that "gateway" courses are open to students of color and poverty, then encourage (perhaps even nag) them to risk taking such courses. Appropriate supports must be provided to these students along with rigorous coursework to ensure their success. Teachers can modify or create curriculum to ensure it is based on challenging content and requires problem solving and application of learning.

Rethinking Instructional Approaches The research on learning requires rethinking about how students of color and poverty are taught. Incorporating strategies that implement "principles of learning" more intentionally will promote higher performance for all students and will also help close the gap. Basic skills need to be balanced with "teaching for understanding" at all levels. Pedagogy must be adapted to high expectations for student learning. Continued work is needed to align classroom curricula, instruction, and assessments with state standards. Several state programs incorporate elements suggested by the research discussed in this report. Reading First, a recently-funded federal grant program for improving K-3 reading achievement, the Math Helping Corps, a state-funded mentor/coordinator program for improving instruction in mathematics in selected schools, and new approaches for teaching English language learners are examples of current programs that include effective instructional practices for closing the achievement gap in Washington state.

Building Professional Learning Communities Teachers are crucial to increasing the performance of students of color and poverty. Many will need new knowledge and skills in order to create more culturally responsive classrooms and schools. Professional development, therefore, must undergird efforts to reduce the achievement gap. Professional learning communities increase teacher capacity to meet the challenge. Such learning communities are characterized by continuous, school-based professional development, mutual support and coaching with teacher peers, dedicated time for collaborative work, and "permission" to take risks as a staff to learn, practice, and hone their skills. Effective school leadership is also fundamental to creating professional learning communities. Consistent with the Nine Characteristics of High Performing Schools, professional development must be focused, sustained, and aligned to the goals of the school and district.

Using Data in Decision Making Accurate and complete data are essential for improving teaching and learning. Data must be analyzed and made available in useful formats so they have meaning in the everyday context of classrooms and lesson design. When disaggregated by racial and ethnic group and by poverty indicators, the data give decision makers, including classroom teachers, information to determine strategies to eliminate the gap. Educators also need to have the skills to understand and use data appropriately to guide their instruction.

Promoting Family and Community Outreach Finally, implementing outreach programs to engage families and communities in partnerships requires resources, know-how, and the determination to make it happen. The achievement gap will be eliminated only through partnerships that involve families and communities in the education of students of color and poverty. These partnerships can also be instrumental in building the resolve to marshal the necessary resources to achieve the goal. Communities can support students of color and those in poverty by enhancing learning opportunities for students outside regular school hours. These experiences can include leisure activities, homework assistance, health and fitness programs, and professionally-guided learning opportunities that provide students the chance to think, work with knowledgeable adults and peers, and meet goals and reach high standards.

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While the achievement gap has been with us for many years, it need not exist in the future. This paper is a starting point for addressing the gap. Much hard work, reflection, and learning will be needed by all in the coming years for the goal of closing the gap to be achieved. It will not be easy, but it is necessary, not only for the individuals involved, but for our communities, state, and nation.

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On-Line Resources

General Links on Addressing the Achievement Gap

Add it Up: Using Research to Improve Education for Low-Income and Minority Students
http://www.prrac.org/additup.pdf

Closing the Achievement Gap: Vision for Changing Beliefs and Practices
http://www.ascd.org/readingroom/books/williams96book.html

Closing the Achievement Gap: Principles for Improving the Educational Success of All Students
http://eric-web.tc.columbia.edu/digest/dig169.asp

Closing the Achievement Gap Requires Mbultiple Solutions
http://www.nwrel.org/cnorse/infoline/may97/article5.html

Closing the Gap One School at a Time
http://www.edletter.org/past/issues/2001-mj/gap.shtml

Cultural Diversity and Academic Achievement
http://www.ncrel.org/sdrs/areas/issues/educatrs/leadrshp/le0bow.htm

Diversity within Unity: Essential Principles for Teaching and Learning in a Multicultural Society
http://www.educ.washington.edu/coetestwebsite/pdf/DiversityUnity.pdf

Raising the Achievement of Low-Performing Students
http://www.mcrel.org/products/learning/raising.html

Including At-Risk Students in Standards-Based Reform: A Report on McREL's Diversity Roundtable II
http://www.mcrel.org/products/diversity/roundtable2.asp

Improving Achievement in the Context of Effective Schools
http://www.nuatc.org/articles/pdf/achievement.pdf

Class Size and Students at Risk: What is Known? What is Next? Instructional Practice and Student Behavior.
http://www.ed.gov/pubs/ClassSize/practice.html

Research about School Size and School Performance in Impoverished Communities
http://www.ed.gov/databases/ERIC_Digests/ed448968.html

Promoting Cultural Understanding in the Classroom and the Community
http://www.ncela.gwu.edu/library/tolerance.htm

Hope for Urban Education: A Study of Nine High-Performing, High-Poverty, Urban Elementary Schools
http://www.ed.gov/pubs/urbanhope/

Reaching the Top (Task Force on Minority High Achievement)
http://www.collegeboard.com/about/association/taskforce/ReachingTheTop.pdf

Advancing Minority High Achievement
http://www.collegeboard.com/about/association/taskforce/MinorityHighAch.pdf

Research and Practice on How People Learn: Pedagogical Inquiry and Praxis
http://iume.tc.columbia.edu/reports/praxis1.html

The Achievement Gap
http://www.edweek.org/sreports/gap.htm

Hidden Family Resources
http://www.ncrel.org/sdrs/cityschl/city1_1c.htm

Who Are the At-Risk Students of the 90s?
http://www.ncrel.org/sdrs/areas/rpl_esys/equity.htm

Breaking Ranks: Making it Happen: Affirming Diversity in the High School
http://www.nassp.org/pdf/making_it_happen.pdf

Links Dealing with Language Minority Students

Texas Successful Schools Study: Quality Education for LEP Students
http://www.ncela.gwu.edu/miscpubs/tea/tsss.pdf

Changing Instruction for Language Minority Students to Achieve National Goals
http://www.ncela.gwu.edu/ncbepubs/symposia/third/chamot.htm

School Effectiveness for Language Minority Students
http://www.ncela.gwu.edu/ncbepubs/resource/effectiveness/thomas-collier97.pdf

Portraits of Success (Bilingual programs)
http://www.lab.brown.edu/public/NABE/portraits.taf

A Conceptual Framework on Learning Environments and Student Motivation for Language Minority and Other Underserved Populations
http://www.ncela.gwu.edu/ncbepubs/symposia/third/mcpartland.htm

What Have We Learned from Research on Successful Secondary Programs for LEP Students?
http://www.ncela.gwu.edu/ncbepubs/symposia/third/lucas.htm

Links Dealing with African American Students

Improving Black Student Achievement
http://www.nwrel.org/cnorse/booklets/achieve/2.html

Race and the Schooling of Black Americans
http://www.theatlantic.com/politics/race/steele.htm

Educational Achievement and Black-White Inequality
http://nces.ed.gov/pubs2002/quarterly/fall/q6-1.asp

Academic Achievement, Race and Reform
http://www.edjustice.org/pdf/raceassess.pdf

Fostering High Achievement in African American Children
http://eric-web.tc.columbia.edu/mono/ti16.pdf

A Study of Achievement and Underachievement of Gifted, Potentially Gifted, and Average African American Students
http://www.ucc.uconn.edu/~wwwgt/ford3.html

Student Diversity and Reform (Several online publications)
http://www.ncela.gwu.edu/library/reform.htm

Links Dealing with Asian American Students

Sources of Asian Academic Achievement Revealed
http://www.umich.edu/~urecord/9798/Feb18_98/asian.htm

A Guide to Communicating with Asian American Families
http://eric-web.tc.columbia.edu/pg/pg02.asp

Stereotypes of Asian American Students
http://eric-web.tc.columbia.edu/digest/dig172.asp

Asian-American Children: What Teachers Should Know
http://www.ed.gov/databases/ERIC_Digests/ed369577.html

A Literature Review Focuses on Asian American Students at Risk
http://www.csos.jhu.edu/crespar/sept1997page12.html

Links Dealing with Latino/Hispanic Students

Latino Students: Organizing Schools For Greater Achievement
http://www.nassp.org/news/bltn0401.html

Latino Achievement Reexamined
http://www.edletter.org/past/issues/1998-so/abstracts.shtml#a1

Latinos in School: Some Facts and Findings
http://www.ed.gov/databases/ERIC_Digests/ed449288.html

Immigrant Latino Parents' High Aspirations for their Children's Success in School Hold Constant
http://www.aera.net/communications/news/011107.htm

State of Education for Hispanic Americans
http://www.ed.gov/pubs/FaultLine/

Key Indicators of Hispanic Student Achievement
http://www.ed.gov/pubs/hispanicindicators/

Links Dealing with Native American Students

Improving Academic Performance Among Native American Students
http://www.ael.org/eric/demmert.pdf

Literacy in Native American Education
http://si.unm.edu/Web%20Journals/articles2001/jmarinucci_jrn.htm

Advocating for Culturally Congruent School Reform
http://www.nwrac.org/congruent/index.html

A Native Perspective on the School Reform Movement: A Hot Topics Paper
http://www.nwrac.org/pub/hot/native.html

Native American Instruction Program Standards for Effective Pedagogy
http://www.ed.gov/pubs/ToolsforSchools/naip.html

Indian Education Index (Several sites)
http://www.indianeduresearch.net/digests.htm

American Indian Learning Styles Survey: As Assessment of Teachers Knowledge
http://www.ncela.gwu.edu/miscpubs/jeilms/vol13/americ13.htm

Appendix A

WASL OVERVIEW AND RESULTS BY RACE/ETHNICITY 1997–2002

The Washington Assessment of Student Learning (WASL) is the state assessment that measures how well students have learned the state's content standards—the Essential Academic Learning Requirements (EALRs). The WASL is a criterion-referenced test which measures the degree to which students have achieved a desired set of learning targets. Thus, performance on the WASL is not based on comparisons with the performance of other students (a norm-referenced interpretation).

The WASL is administered to students in grades 4, 7, and 10 and assesses four subjects—reading, writing, mathematics, and listening. Legislation required that performance standards on the assessment be set at internationally competitive levels, and standard setting committees established the performance levels related to student achievement of the EALRs. The committees were composed of teachers, curriculum specialists in the relevant subject area, school administrators, parents, and community members. The committees determined the level of performance on the assessments that would be required for students to "meet the standard" on the EALRs. In determining the level, *the committee was guided by what they believed a "well taught, hard working student" should be able to do in the spring of the tested grade*. Thus, students who "meet the standard" perform at a high level.

In addition to the "meets standard" level, other "progress categories" above and below the standard were established to show growth over time as well as to give students and parents an indication of how close a student's performance is to the standard. These "levels" were established for reading and mathematics and are described as follows:

Level 4 **Above Standard** This level represents superior performance, notably above that required for meeting the standard.

Level 3 **MEETS STANDARD** This level represents solid academic performance for grade level. Students reaching this level have demonstrated proficiency over challenging content, including subject-matter knowledge, application of such knowledge to real world situations, and analytical skills appropriate for the content and grade level.

Level 2 **Below Standard** This level denotes partial accomplishment of the knowledge and skills that are fundamental for meeting the standard at the grade level.

Level 1 **Well Below Standard** This level denotes little or no demonstration of the required knowledge and skills that are fundamental for meeting the standard at the grade level.

Assessments were developed first for grade 4 and were initially administered on a voluntary basis in the spring of 1997, with mandatory participation in 1998. Assessments for grade 7 were administered on a voluntary basis in the spring of 1998. The grade 10 assessments were pilot-tested at that time and were administered in the spring of 1999. Participation in the grade 7 and 10 assessments was voluntary until 2001, although most schools participated in the assessments prior to 2001.

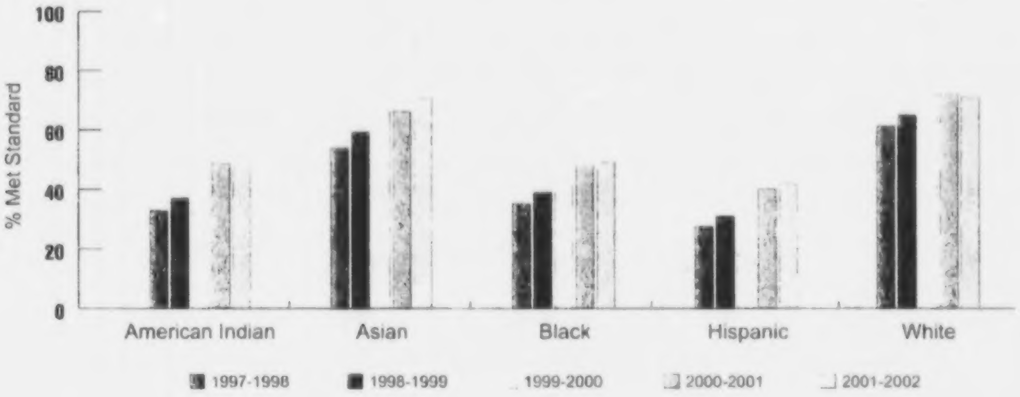
Other subjects will be tested in the future in other grades.

The reading and mathematics WASL use multiple-choice, short-answer, and extended-response items. The tests are considered "standardized"—all students are to respond to the same items, under the same conditions, and during the same three-week period in the spring. The tests are also untimed (i.e., students have as much time as they reasonably need to complete their work). Guidelines for providing accommodations to students with special needs have been developed to encourage the inclusion of as many students as possible. Special needs students include those in special education programs and with Section 504 plans, English language learners (ESL/bilingual), and migrant students. A broad range of accommodations allows nearly all students access to some or all parts of the assessment. Students who are not exempted from the assessment but do not take the test for some reason (e.g., absent, refusal) are considered Not Tested and are considered not meeting standard. These students are considered to be in Level 0.

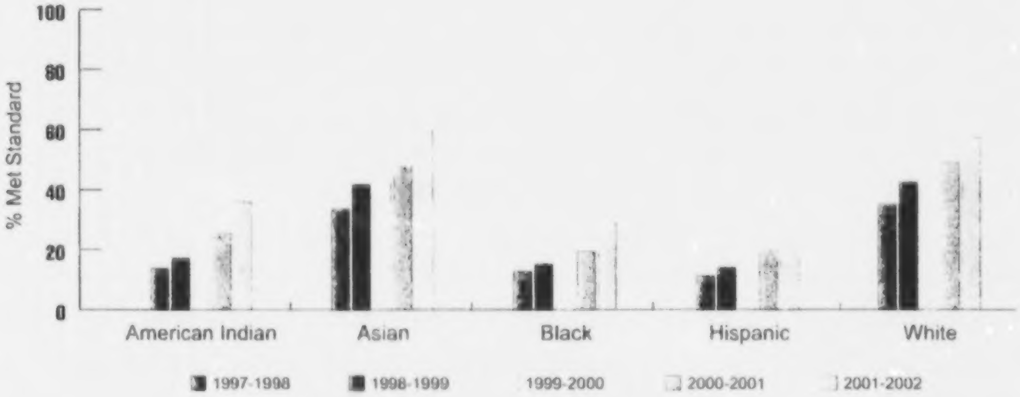
The remainder of this appendix provides WASL results for the five major race/ethnic groups in Washington for each of the grades and subjects tested. The percent meeting standard is provided as well as the percentage of students who score in the various levels in reading and mathematics.

GRADE 4 - PERCENT MEETING STANDARD

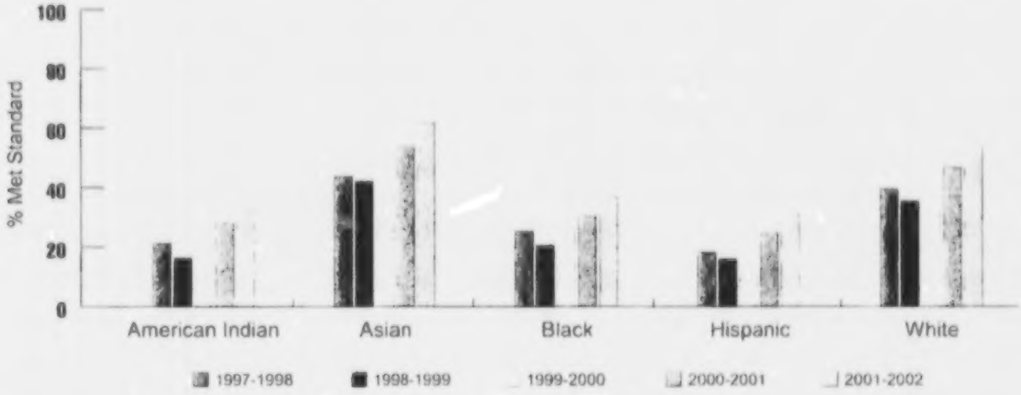
Reading	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	33.0	37.3	46.9	48.7	50.9
Asian	54.1	59.5	66.7	66.4	70.6
Black	35.4	39.3	47.7	48.2	49.3
Hispanic	27.6	31.3	39.4	40.4	42.0
White	61.5	65.3	71.8	72.1	71.2



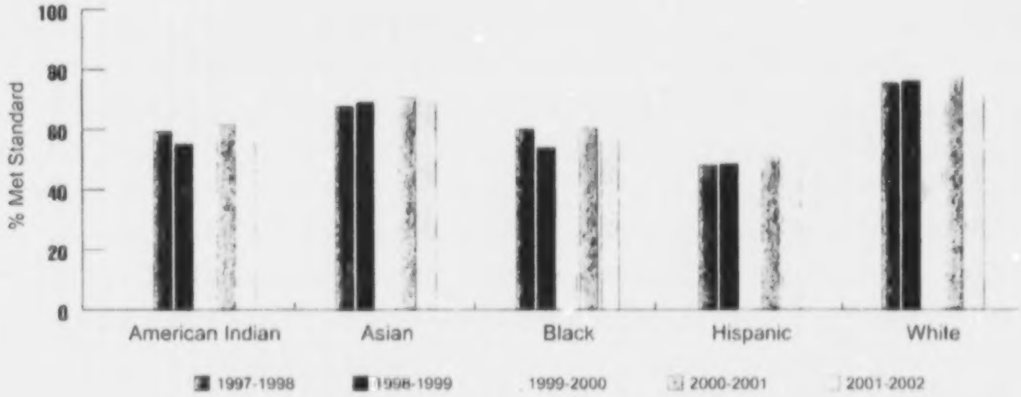
Mathematics	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	13.9	17.4	24.6	25.5	36.0
Asian	33.6	41.7	46.0	47.7	59.4
Black	13.0	15.3	18.7	19.5	28.6
Hispanic	11.4	14.2	18.2	20.0	29.3
White	35.4	42.5	47.2	49.1	57.4



Writing	1997-98	1998-99	1999-00	2000-01	2001-02
American Indian	21.4	16.6	22.8	28.2	32.6
Asian	43.9	42.3	50.0	53.7	62.0
Black	25.5	20.7	25.4	30.5	37.0
Hispanic	18.4	16.2	20.8	24.8	31.0
White	39.7	35.6	42.8	46.9	53.2

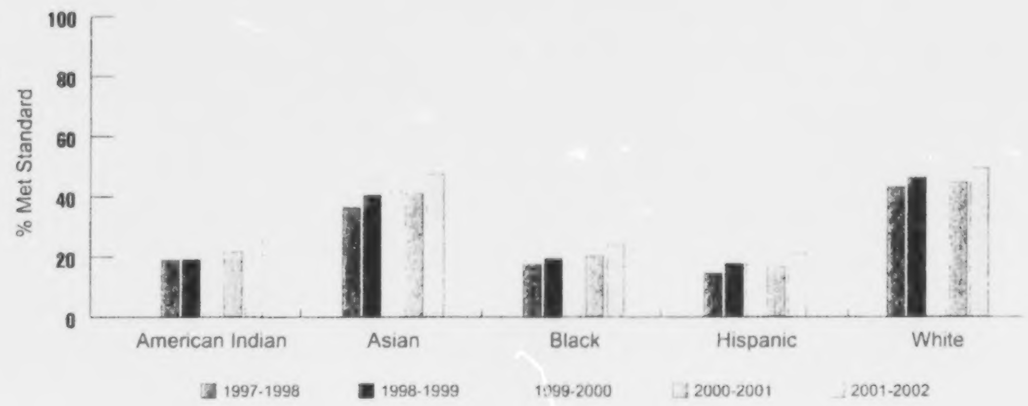


Listening	1997-98	1998-99	1999-00	2000-01	2001-02
American Indian	59.6	55.3	53.5	61.9	57.3
Asian	67.8	69.2	61.2	70.7	68.8
Black	60.2	54.1	51.8	60.7	56.2
Hispanic	48.3	48.7	45.7	50.8	48.5
White	75.7	76.5	70.2	77.4	70.9

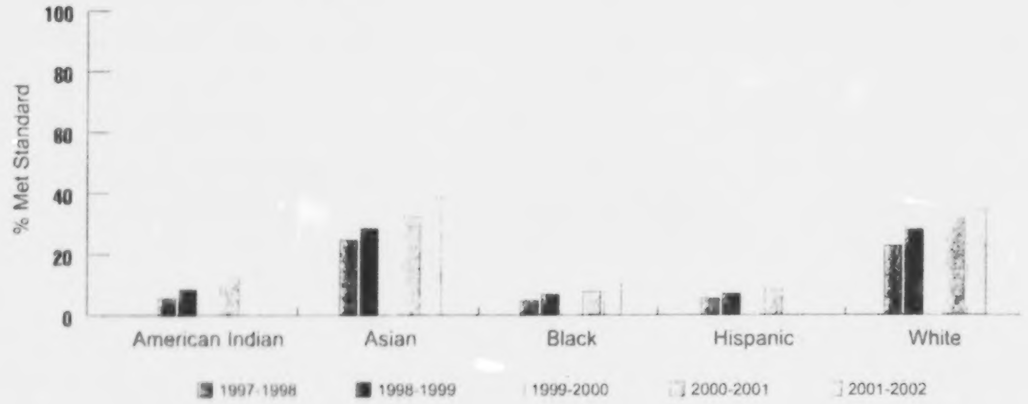


GRADE 7 - PERCENT MEETING STANDARD

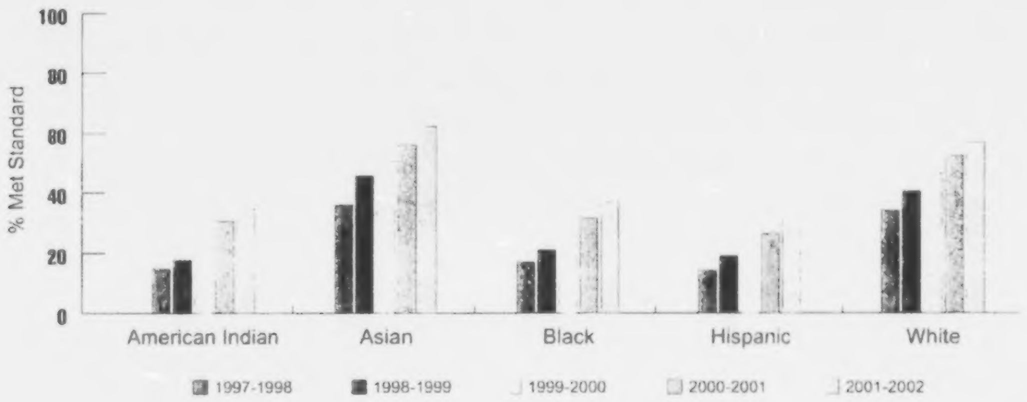
Reading	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	19.1	19.2	20.5	21.8	26.4
Asian	36.5	40.6	42.0	41.3	47.6
Black	17.5	19.5	20.4	20.4	24.2
Hispanic	14.7	17.8	17.7	16.7	21.2
White	43.3	46.3	47.1	44.9	49.7



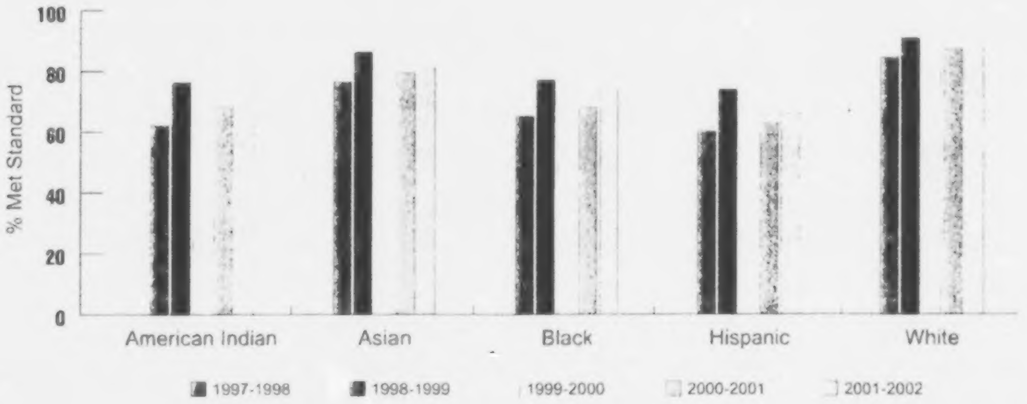
Mathematics	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	5.7	8.5	10.6	11.9	14.3
Asian	24.8	28.5	33.8	32.1	38.6
Black	4.9	6.8	8.7	7.8	10.3
Hispanic	5.5	7.2	9.7	8.4	11.6
White	22.8	28.1	32.4	31.6	34.4



Writing	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	15.1	17.9	22.7	30.9	34.9
Asian	36.3	45.9	51.0	56.2	62.5
Black	17.2	21.3	25.9	31.9	36.9
Hispanic	14.5	19.3	22.8	26.6	31.8
White	34.3	40.8	46.7	52.6	57.2

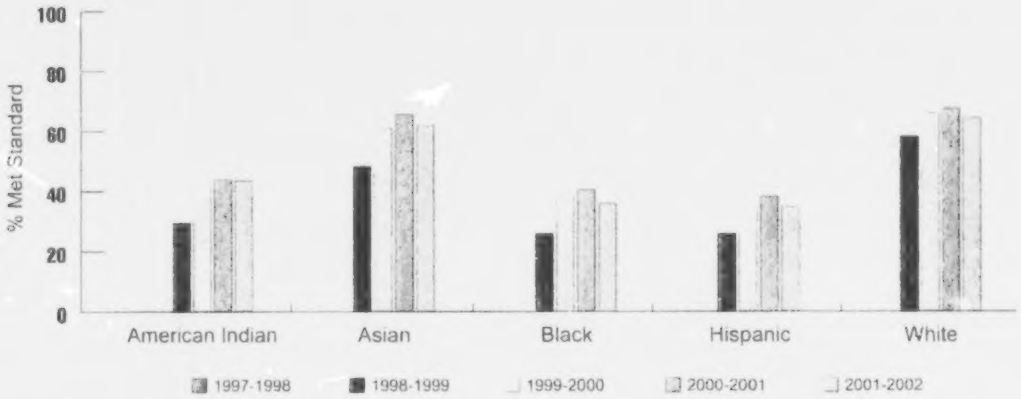


Listening	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	62.3	76.6	67.1	68.0	75.6
Asian	76.7	86.4	76.4	79.6	81.3
Black	65.2	77.2	67.3	68.1	73.7
Hispanic	60.2	74.1	57.8	62.9	66.1
White	84.5	90.9	84.7	87.2	87.5

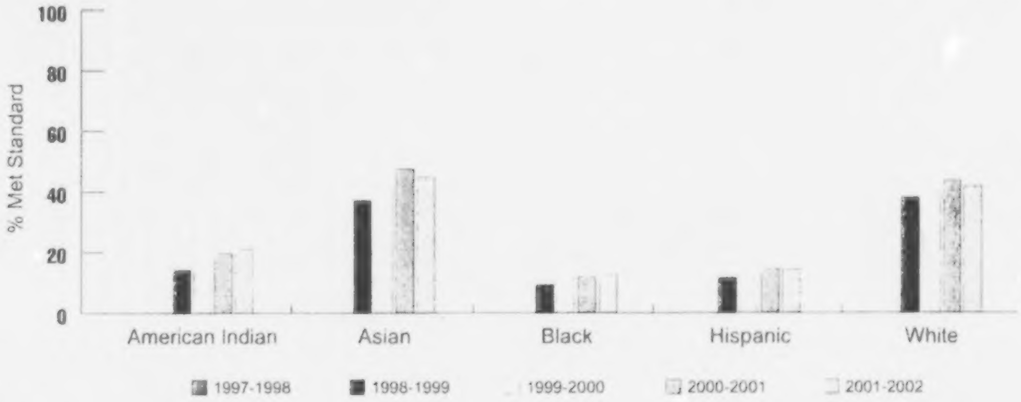


GRADE 10 - PERCENT MEETING STANDARD

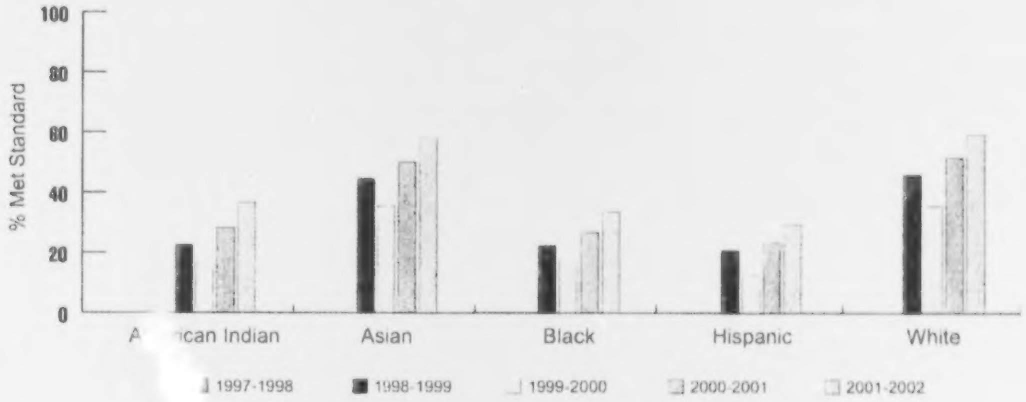
Reading	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	(n.a.)	29.6	40.9	44.1	43.7
Asian	(n.a.)	48.5	61.0	65.8	62.1
Black	(n.a.)	26.1	38.2	40.6	36.2
Hispanic	(n.a.)	26.0	35.9	38.4	34.9
White	(n.a.)	58.3	66.1	67.8	64.6



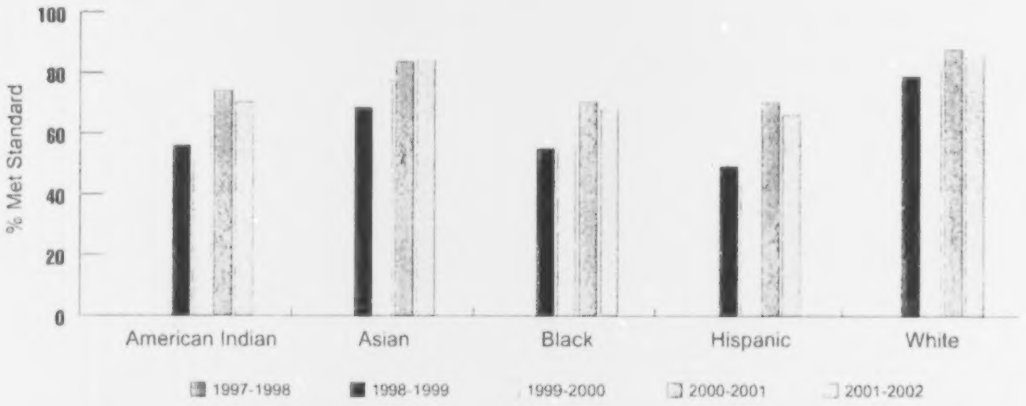
Mathematics	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**
American Indian	(n.a.)	14.3	17.3	19.7	21.3
Asian	(n.a.)	37.3	42.1	47.6	44.9
Black	(n.a.)	9.5	11.7	11.9	13.0
Hispanic	(n.a.)	11.6	12.6	14.6	14.3
White	(n.a.)	38.1	40.1	43.7	41.9



Writing	1997-98	1998-99	1999-00	2000-01	2001-02
American Indian	(n.a.)	22.6	16.4	28.3	36.8
Asian	(n.a.)	44.7	35.6	50.2	58.1
Black	(n.a.)	22.4	17.0	27.0	33.6
Hispanic	(n.a.)	20.8	12.7	23.5	29.4
White	(n.a.)	46.1	35.7	51.9	59.6

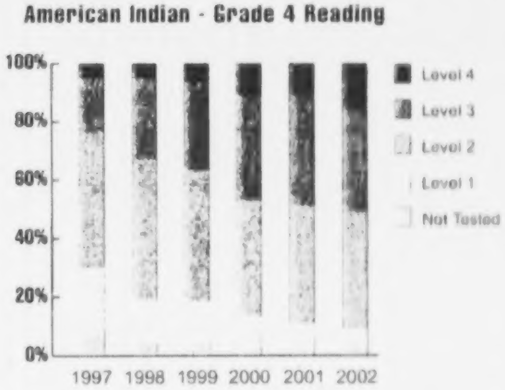


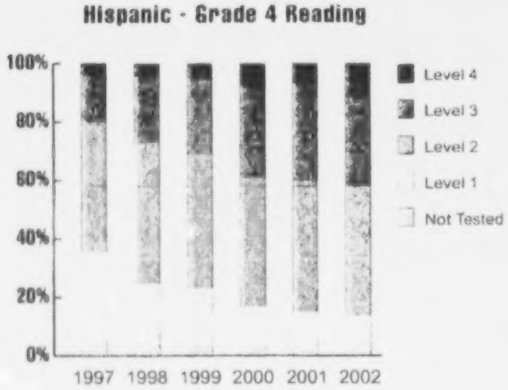
Listening	1997-98	1998-99	1999-00	2000-01	2001-02
American Indian	(n.a.)	56.2	66.0	74.5	70.8
Asian	(n.a.)	68.8	77.5	84.0	84.4
Black	(n.a.)	55.4	62.6	70.6	68.2
Hispanic	(n.a.)	49.6	59.7	70.6	66.4
White	(n.a.)	79.3	83.7	88.1	85.9

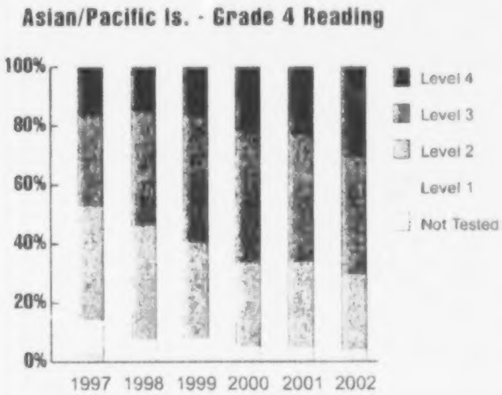


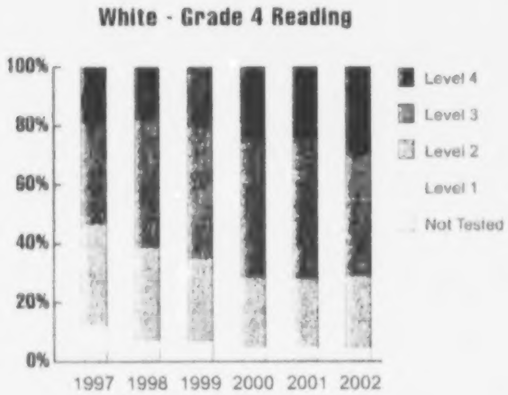
GRADE 4 READING

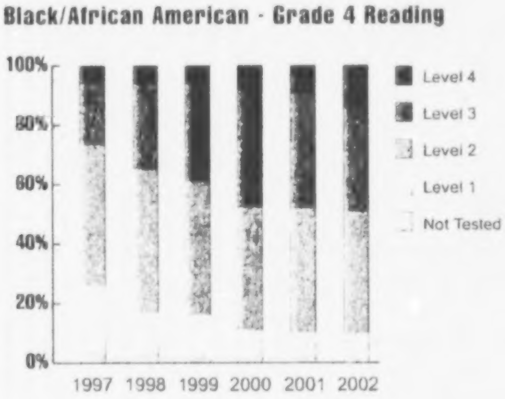
Data for these graphs are found on page 75.







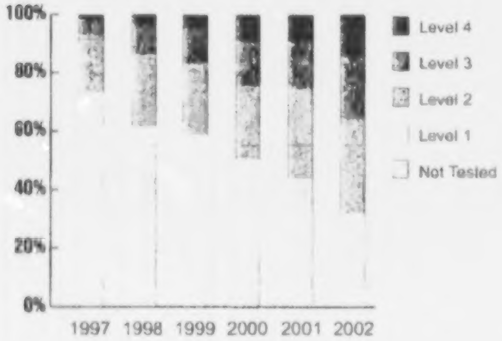




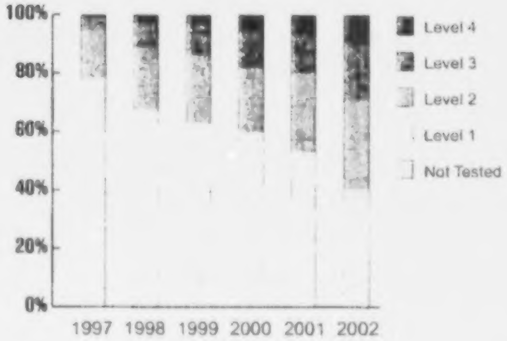
GRADE 4 MATH

Data for these graphs are found on page 75.

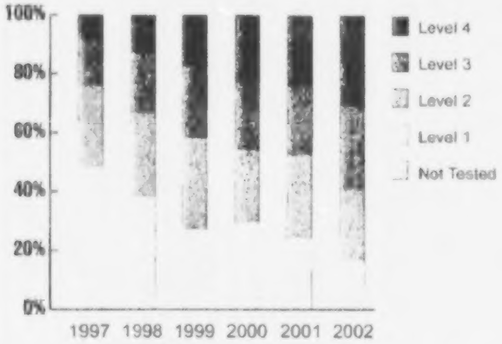
American Indian - Grade 4 Math



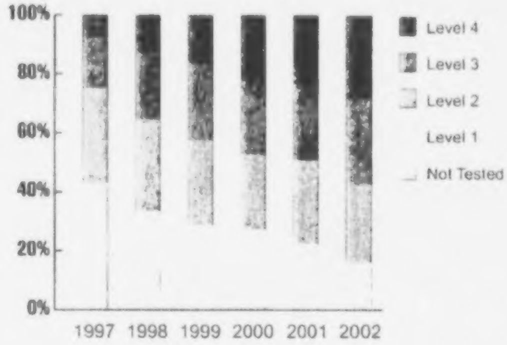
Hispanic - Grade 4 Math



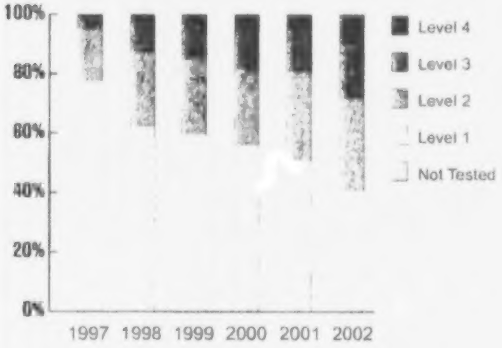
Asian/Pacific Islander - Grade 4 Math



White - Grade 4 Math

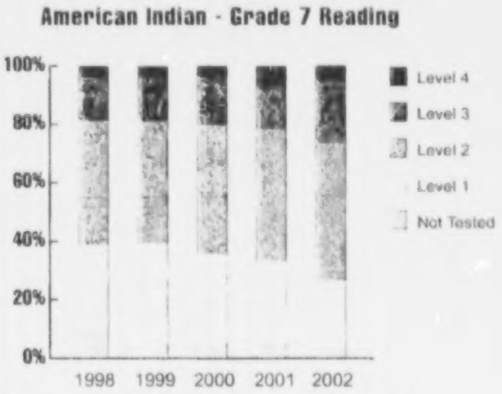


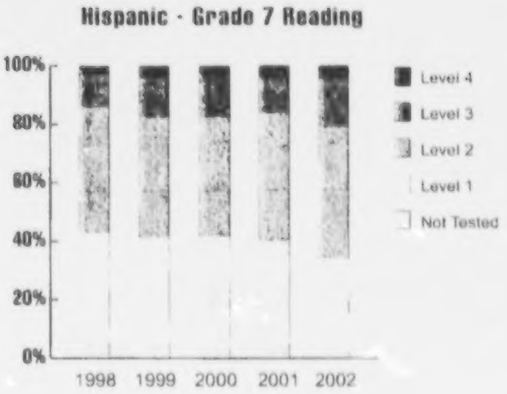
Black/African American - Grade 4 Math

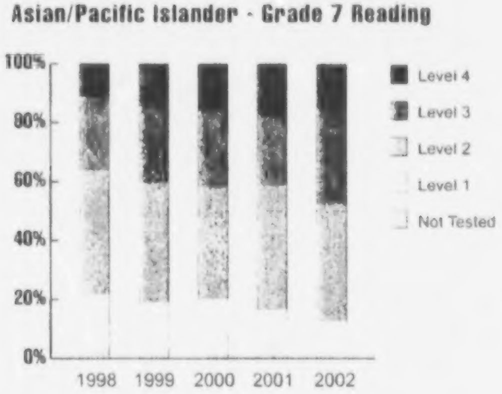


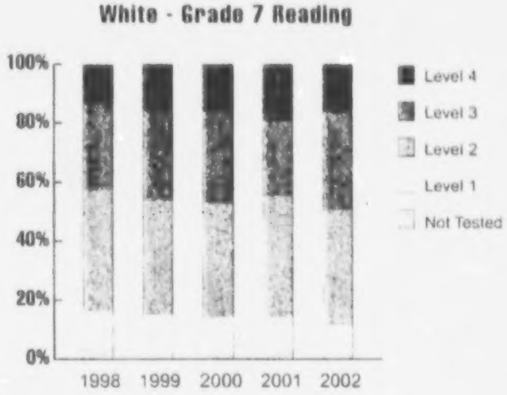
GRADE 7 READING

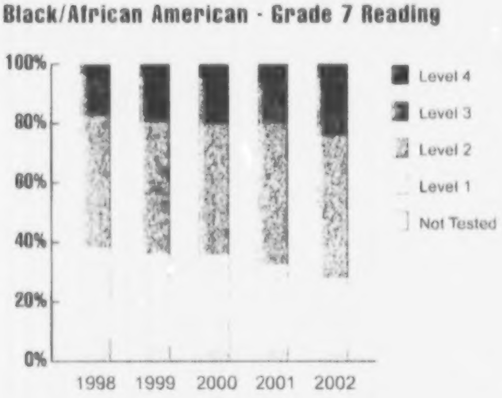
Data for these graphs are found on page 76.





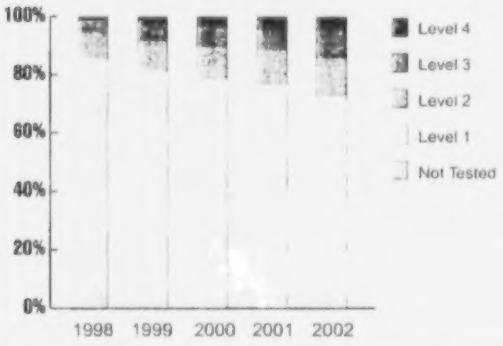


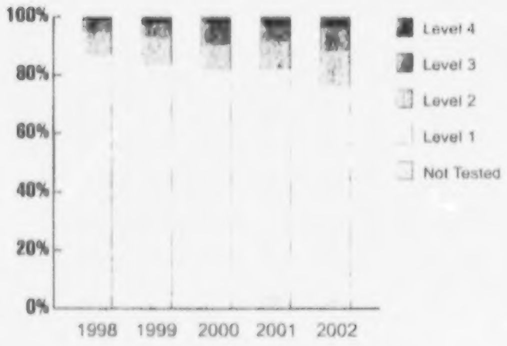


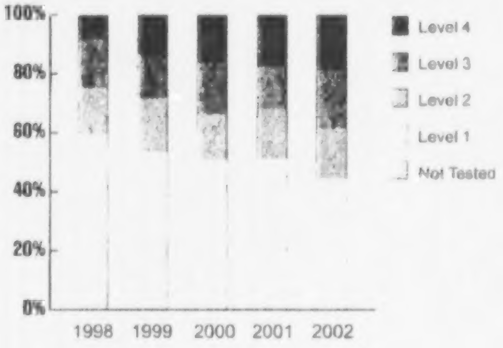


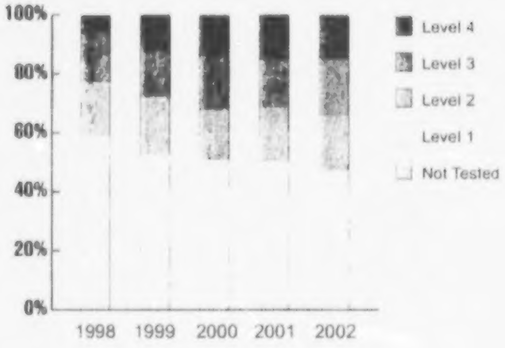
GRADE 7 MATH

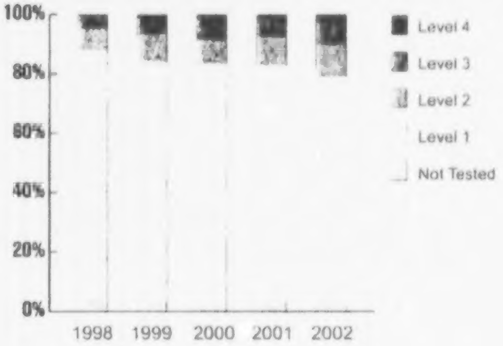
Data for these graphs are found on page 76.


American Indian - Grade 7 Math


Hispanic - Grade 7 Math

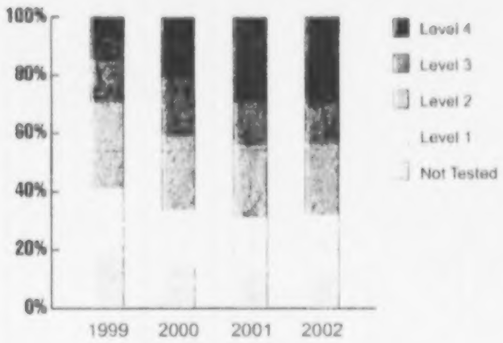

Asian/Pacific Islander - Grade 7 Math

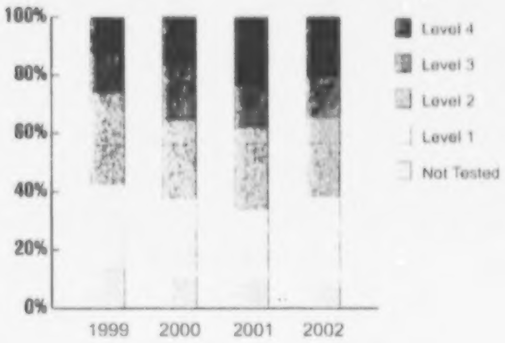

White - Grade 7 Math

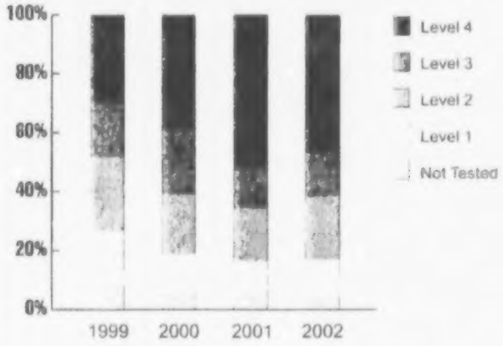

Black/African American - Grade 7 Math

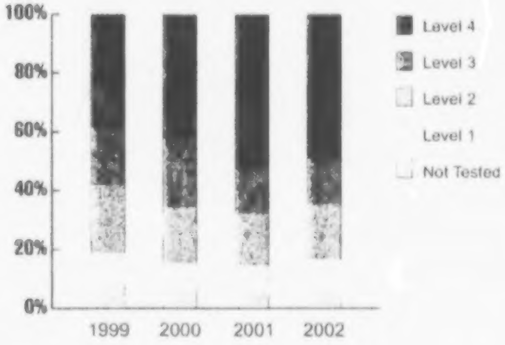
GRADE 10 READING

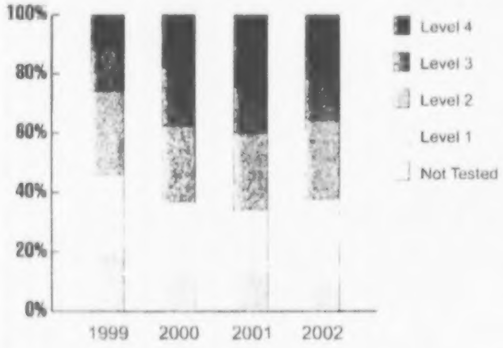
Data for these graphs are found on page 77.


American Indian - Grade 10 Reading


Hispanic - Grade 10 Reading

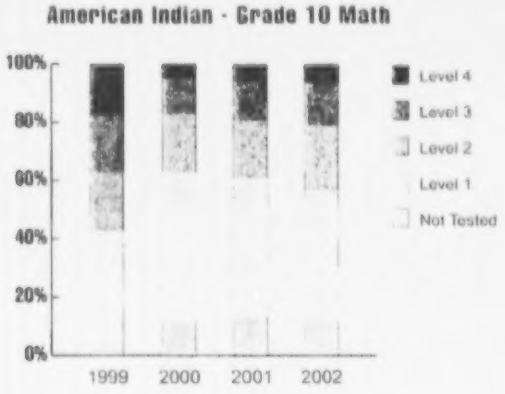

Asian/Pacific Islander - Grade 10 Reading

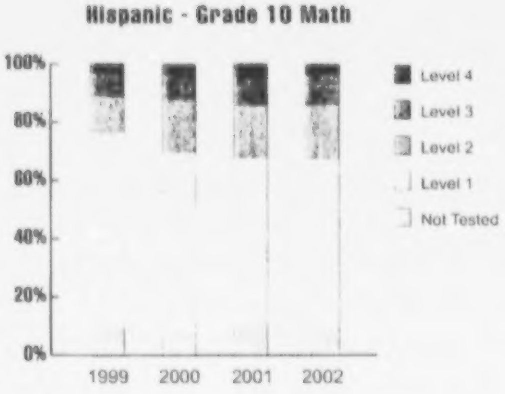

White - Grade 10 Reading

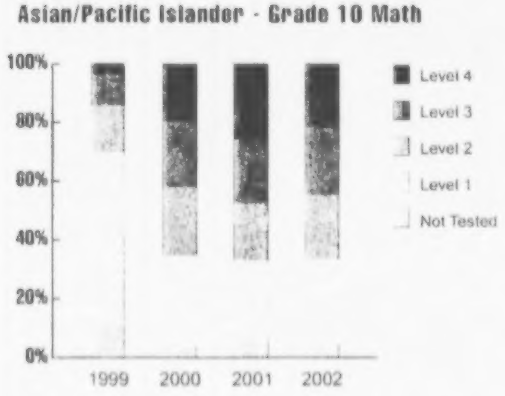

Black/African American - Grade 10 Reading

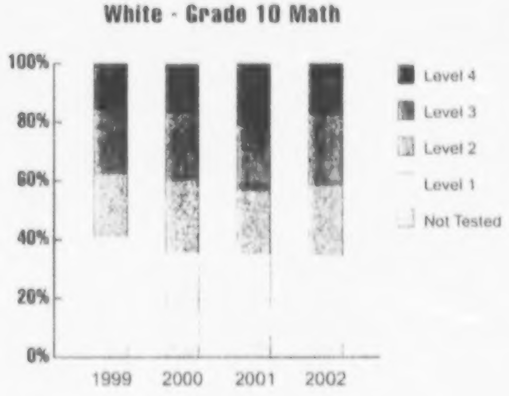
GRADE 10 MATH

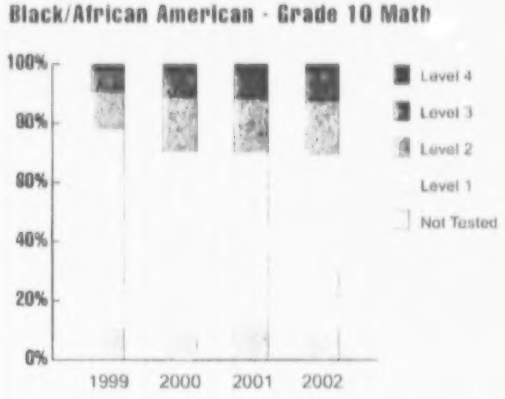
Data for these graphs are found on page 77.











Grade 4 WASL Results, 1997–2002 (rows may not add to 100 due to rounding)

Reading

	Percent				
	Not Tested	Level 1	Level 2	Level 3	Level 4
American Indian-2002	1.9	7.5	39.7	34.7	16.2
American Indian-2001	2.2	9.2	39.9	37.9	10.8
American Indian-2000	2.7	10.9	39.5	35.8	11.1
American Indian-1999	3.8	14.8	44.7	29.8	6.9
American Indian-1998	4.3	14.6	48.2	27.5	5.4
American Indian-1997	6.6	23.3	46.5	18.4	5.1
Asian/Pacific Islander-2002	0.6	3.5	25.4	39.6	30.9
Asian/Pacific Islander-2001	0.7	4.2	28.7	42.8	23.6
Asian/Pacific Islander-2000	1.0	4.3	28.0	44.8	21.9
Asian/Pacific Islander-1999	1.4	6.5	32.7	42.3	17.1
Asian/Pacific Islander-1998	1.0	6.5	38.4	38.7	15.4
Asian/Pacific Islander-1997	3.1	11.0	38.7	30.3	16.9
Black-2002	1.2	8.4	41.1	34.4	14.9
Black-2001	1.9	8.4	41.5	38.5	9.7
Black-2000	2.0	8.8	41.5	38.9	8.8
Black-1999	2.4	13.6	44.8	33.0	6.2
Black-1998	3.7	13.2	47.8	29.1	6.2
Black-1997	4.3	21.4	47.5	20.8	6.0
Hispanic-2002	1.2	12.5	44.3	29.9	12.1
Hispanic-2001	1.8	13.0	44.8	32.8	7.6
Hispanic-2000	2.5	14.1	44.0	31.5	7.9
Hispanic-1999	2.8	20.3	45.6	26.0	5.3
Hispanic-1998	4.0	20.4	48.2	22.8	4.6
Hispanic-1997	5.6	30.1	44.4	15.7	4.3
White-2002	1.0	3.2	24.6	40.6	30.6
White-2001	1.3	3.3	23.3	47.3	24.8
White-2000	1.3	3.5	23.4	45.8	26.0
White-1999	1.4	5.2	28.2	44.6	20.6
White-1998	1.9	5.4	31.3	43.4	18.0
White-1997	3.4	8.7	34.2	34.1	19.6
State-2002	1.4	4.7	28.3	38.6	27.0
State-2001	1.7	4.9	27.4	44.5	21.5
State-2000	2.1	5.1	27.0	43.4	22.4
State-1999	2.4	7.3	31.2	41.4	17.7
State-1998	2.3	7.5	34.6	40.0	15.6
State-1997	4.7	11.4	36.0	31.1	16.8

Mathematics

	Percent				
	Not Tested	Level 1	Level 2	Level 3	Level 4
American Indian-2002	1.1	31.1	31.9	21.8	14.2
American Indian-2001	1.1	42.7	30.7	16.0	9.5
American Indian-2000	2.0	48.4	25.0	15.3	9.3
American Indian-1999	1.9	56.8	24.3	12.3	4.7
American Indian-1998	2.1	59.3	24.8	9.9	4.0
American Indian-1997	2.1	71.2	19.8	5.3	1.6
Asian/Pacific Islander-2002	0.9	15.7	23.9	28.5	30.9
Asian/Pacific Islander-2001	0.7	23.6	27.9	23.3	24.4
Asian/Pacific Islander-2000	0.8	28.7	24.5	22.9	23.1
Asian/Pacific Islander-1999	0.7	26.4	31.2	24.3	17.4
Asian/Pacific Islander-1998	1.0	37.1	28.4	20.4	13.1
Asian/Pacific Islander-1997	1.2	46.8	27.6	15.7	8.8
Black-2002	1.0	39.7	30.7	18.7	9.9
Black-2001	1.2	49.4	29.9	13.9	5.6
Black-2000	1.8	54.1	25.4	12.7	6.0
Black-1999	1.3	58.0	25.4	11.6	3.7
Black-1998	1.9	60.3	24.8	10.0	3.0
Black-1997	2.2	75.1	17.5	4.0	1.2
Hispanic-2002	1.2	39.1	30.4	19.3	10.0
Hispanic-2001	1.3	51.6	27.1	13.1	6.9
Hispanic-2000	2.0	57.7	22.0	12.3	6.0
Hispanic-1999	1.6	61.0	23.2	10.5	3.7
Hispanic-1998	2.1	65.2	21.4	8.5	2.8
Hispanic-1997	2.2	75.9	16.5	4.4	1.0
White-2002	0.9	15.4	26.2	29.0	28.4
White-2001	1.0	21.3	28.5	25.6	23.6
White-2000	0.9	26.3	25.6	24.9	22.3
White-1999	0.6	28.3	28.6	26.3	16.2
White-1998	1.0	32.4	31.3	22.6	12.7
White-1997	1.5	42.0	31.6	17.0	7.9
State-2002	1.4	20.0	26.9	26.9	24.8
State-2001	1.4	26.8	28.4	23.1	20.3
State-2000	2.0	31.4	24.9	22.4	19.3
State-1999	1.8	33.6	27.4	23.3	13.9
State-1998	1.2	37.8	29.8	20.2	11.0
State-1997	2.6	47.2	28.9	14.7	6.6

Grade 7 WASL Results, 1998–2002 (rows may not add to 100 due to rounding)

Reading

	Percent				
	Not Tested	Level 1	Level 2	Level 3	Level 4
American Indian-2002	3.6	23.1	46.9	21.0	5.5
American Indian-2001	5.3	27.9	45.0	14.6	7.2
American Indian-2000	5.8	29.6	44.1	16.3	4.2
American Indian-1999	6.2	32.9	41.8	15.6	3.5
American Indian-1998	9.4	29.3	42.2	15.2	3.9
Asian/Pacific Islander-2002	0.9	11.7	39.7	31.8	15.8
Asian/Pacific Islander-2001	1.7	14.8	42.1	23.2	18.2
Asian/Pacific Islander-2000	1.9	18.0	38.1	25.8	16.2
Asian/Pacific Islander-1999	2.1	17.0	40.4	26.1	14.4
Asian/Pacific Islander-1998	3.4	18.3	42.0	25.0	11.4
Black-2002	2.9	25.1	47.8	19.5	4.8
Black-2001	4.0	28.5	47.1	14.5	5.9
Black-2000	3.4	32.2	44.0	15.8	4.6
Black-1999	5.3	30.7	44.6	15.5	3.9
Black-1998	7.7	30.3	44.5	13.9	3.5
Hispanic-2002	2.8	31.4	44.6	16.7	4.6
Hispanic-2001	4.8	35.2	43.4	11.8	4.9
Hispanic-2000	3.5	38.0	40.8	13.9	3.8
Hispanic-1999	4.8	36.3	41.1	13.3	4.5
Hispanic-1998	5.7	37.1	42.6	11.2	3.4
White-2002	1.8	9.8	38.7	33.3	16.4
White-2001	2.2	12.0	40.9	25.4	19.5
White-2000	1.9	12.1	38.8	31.0	16.2
White-1999	2.4	12.6	38.7	30.3	16.0
White-1998	3.6	12.6	40.7	29.4	13.6
State-2002	2.3	13.2	39.9	30.4	14.2
State-2001	2.9	15.6	41.7	23.0	16.8
State-2000	3.9	16.2	39.1	27.1	13.7
State-1999	3.1	16.3	39.1	27.6	13.9
State-1998	3.8	16.3	41.4	26.6	11.9

Mathematics

	Percent				
	Not Tested	Level 1	Level 2	Level 3	Level 4
American Indian-2002	4.2	68.4	13.0	9.6	4.7
American Indian-2001	4.7	71.6	11.8	7.1	4.8
American Indian-2000	3.4	75.2	10.8	7.4	3.2
American Indian-1999	3.0	78.0	10.3	6.3	2.4
American Indian-1998	5.3	80.2	8.8	4.7	1.0
Asian/Pacific Islander-2002	1.0	43.3	17.2	19.6	18.9
Asian/Pacific Islander-2001	1.3	49.7	16.9	14.7	17.4
Asian/Pacific Islander-2000	1.1	49.5	15.6	17.3	16.5
Asian/Pacific Islander-1999	1.5	52.0	18.1	14.8	13.6
Asian/Pacific Islander-1998	2.1	57.5	15.6	16.6	8.1
Black-2002	3.0	76.0	10.7	7.6	2.7
Black-2001	3.6	79.4	9.2	5.5	2.3
Black-2000	2.7	80.5	8.1	6.3	2.4
Black-1999	3.0	80.9	9.3	4.7	2.1
Black-1998	4.0	83.9	7.2	4.0	0.9
Hispanic-2002	2.5	73.7	12.2	8.1	3.5
Hispanic-2001	4.6	77.5	9.5	5.3	3.1
Hispanic-2000	2.6	78.8	8.9	7.1	2.6
Hispanic-1999	2.6	80.9	9.3	4.8	2.4
Hispanic-1998	3.6	83.2	7.7	4.2	1.3
White-2002	1.8	45.4	18.4	19.3	15.1
White-2001	1.9	48.3	18.3	16.4	15.2
White-2000	1.5	49.2	16.9	18.5	13.9
White-1999	1.4	51.3	19.2	15.9	12.2
White-1998	2.2	56.8	18.3	16.3	6.3
State-2002	2.3	50.2	17.1	17.2	13.2
State-2001	2.7	53.2	16.7	14.3	13.1
State-2000	2.8	53.7	15.3	16.2	12.0
State-1999	2.6	55.8	17.4	13.8	10.4
State-1998	2.2	61.2	16.5	14.4	5.7

Grade 10 WASL Results, 1999–2002 (rows may not add to 100 due to rounding)

Reading

	Percent				
	Not Tested	Level 1	Level 2	Level 3	Level 4
American Indian-2002	11.5	20.5	24.4	14.1	29.6
American Indian-2001	12.3	19.0	24.6	14.7	29.4
American Indian-2000	14.0	19.7	25.4	20.3	20.6
American Indian-1999	17.6	23.3	29.6	14.8	14.8
Asian/Pacific Islander-2002	4.2	12.8	21.0	15.2	46.8
Asian/Pacific Islander-2001	5.4	11.3	17.5	13.7	52.2
Asian/Pacific Islander-2000	5.3	13.5	20.2	21.8	39.2
Asian/Pacific Islander-1999	8.0	18.7	24.8	18.3	30.2
Black-2002	9.5	27.6	26.8	13.9	22.3
Black-2001	13.1	20.6	25.8	15.7	24.8
Black-2000	13.2	23.2	25.6	19.6	18.4
Black-1999	18.5	26.9	28.5	13.9	12.2
Hispanic-2002	8.8	29.1	27.2	14.4	20.6
Hispanic-2001	9.2	24.4	27.9	14.6	23.8
Hispanic-2000	10.6	27.0	26.7	18.8	17.0
Hispanic-1999	14.4	27.8	31.7	13.3	12.7
White-2002	5.2	11.4	18.8	15.6	49.0
White-2001	5.7	8.7	17.7	14.8	53.0
White-2000	6.1	9.3	18.7	23.2	42.6
White-1999	7.9	10.9	22.8	19.5	38.9
State-2002	6.9	13.9	20.0	15.2	44.0
State-2001	7.8	10.9	18.9	14.5	47.9
State-2000	9.0	11.7	19.6	22.1	37.7
State-1999	11.7	13.7	23.1	18.1	33.4

Mathematics

	Percent				
	Not Tested	Level 1	Level 2	Level 3	Level 4
American Indian-2002	11.8	44.5	22.4	14.5	6.8
American Indian-2001	12.7	48.0	19.6	13.3	6.4
American Indian-2000	11.0	51.8	20.0	11.9	5.4
American Indian-1999	5.1	37.5	20.0	19.7	17.7
Asian/Pacific Islander-2002	4.4	28.9	21.8	23.4	21.5
Asian/Pacific Islander-2001	5.6	27.5	19.3	21.9	25.7
Asian/Pacific Islander-2000	3.8	30.8	23.3	22.2	19.9
Asian/Pacific Islander-1999	10.8	58.8	16.1	10.6	3.8
Black-2002	9.9	59.4	17.7	10.0	3.0
Black-2001	13.0	56.9	18.2	7.8	4.2
Black-2000	9.4	60.8	18.2	8.6	3.0
Black-1999	10.9	66.9	12.6	7.4	2.1
Hispanic-2002	9.1	57.9	18.7	10.2	4.0
Hispanic-2001	9.9	57.5	18.0	9.4	5.3
Hispanic-2000	7.5	61.9	18.0	8.6	4.0
Hispanic-1999	9.1	66.9	12.6	8.0	3.6
White-2002	5.2	29.1	23.9	24.2	17.7
White-2001	6.2	28.7	21.5	22.1	21.6
White-2000	4.4	31.2	24.4	22.9	17.0
White-1999	4.9	35.9	21.2	21.9	16.2
State-2002	6.9	33.2	22.7	21.6	15.6
State-2001	8.2	32.4	20.5	19.9	19.0
State-2000	7.2	34.8	22.9	20.2	14.8
State-1999	8.2	39.4	19.4	19.1	13.9

Appendix B

READING & MATH WASL RESULTS NEEDED TO MEET FUTURE GOALS

State Goals (25% Reduction in Students Not Meeting Standard by 2004)

Federal Goals (All Students Are Proficient by 2014)

State Goals

Grade 4

	Reading		Math		Writing	
	Met standard 2001	Goal 2004	Met standard 2001	Goal 2004	Met standard 2001	Goal 2004
White	72.1	79.1	49.1	61.8	46.9	60.2
Asian/Pac Is	66.4	74.8	47.7	60.8	53.7	65.3
Amer Indian	48.7	61.5	25.5	44.1	28.2	46.2
Black	48.2	61.2	19.5	39.6	30.5	47.9
Hispanic	40.4	55.3	20.0	40.0	24.8	43.6

Grade 7

	Reading		Math		Writing	
	Met standard 2001	Goal 2004	Met standard 2001	Goal 2004	Met standard 2001	Goal 2004
White	44.9	58.7	31.6	48.7	52.6	64.5
Asian/Pac Is	41.3	56.0	32.1	49.1	56.2	67.2
Amer Indian	21.8	41.4	11.9	33.9	30.9	48.2
Black	20.4	40.3	7.8	30.9	31.9	48.9
Hispanic	16.7	37.5	8.4	31.3	26.6	45.0

Grade 10

	Reading		Math		Writing	
	Met standard 2001	Goal 2004	Met standard 2001	Goal 2004	Met standard 2001	Goal 2004
White	67.8	75.9	43.7	57.8	51.9	63.9
Asian/Pac Is	65.8	74.4	47.6	60.7	50.2	62.7
Amer Indian	44.1	58.1	19.7	39.8	28.3	46.2
Black	40.6	55.5	11.9	33.9	27.0	45.3
Hispanic	38.4	53.8	14.6	36.0	23.5	42.6

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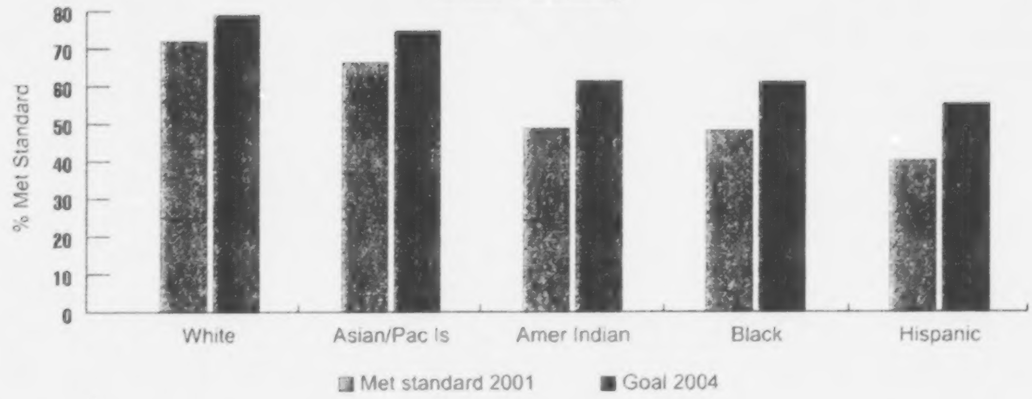
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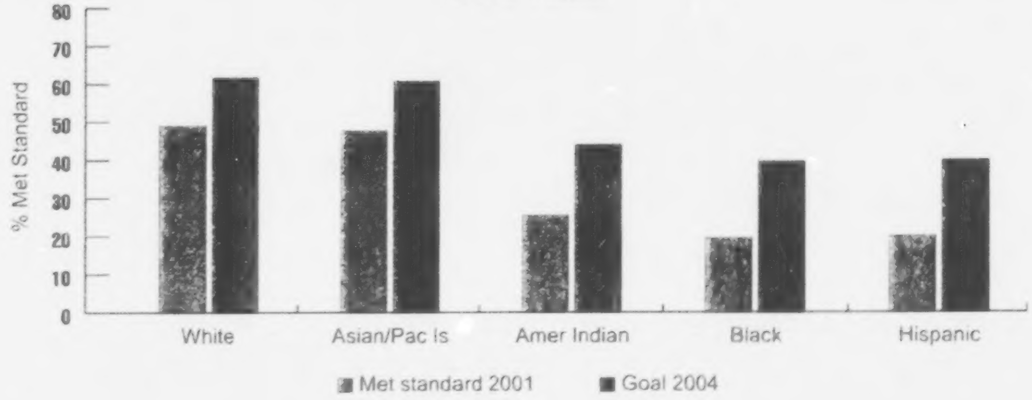
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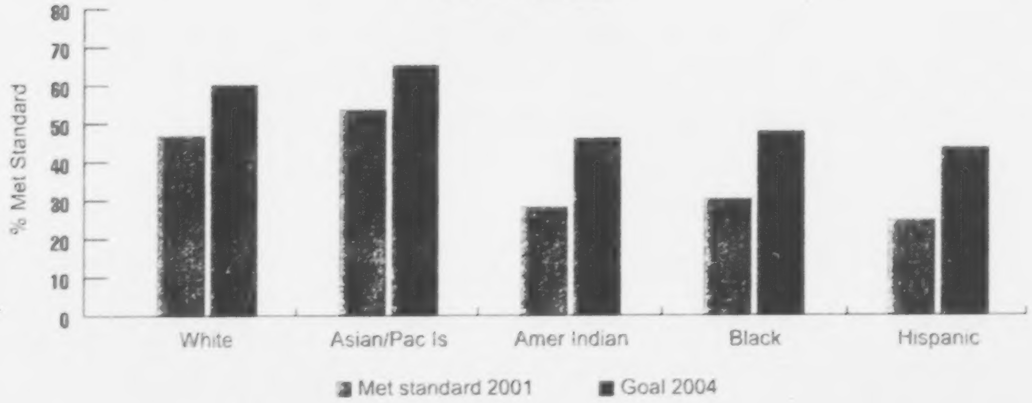
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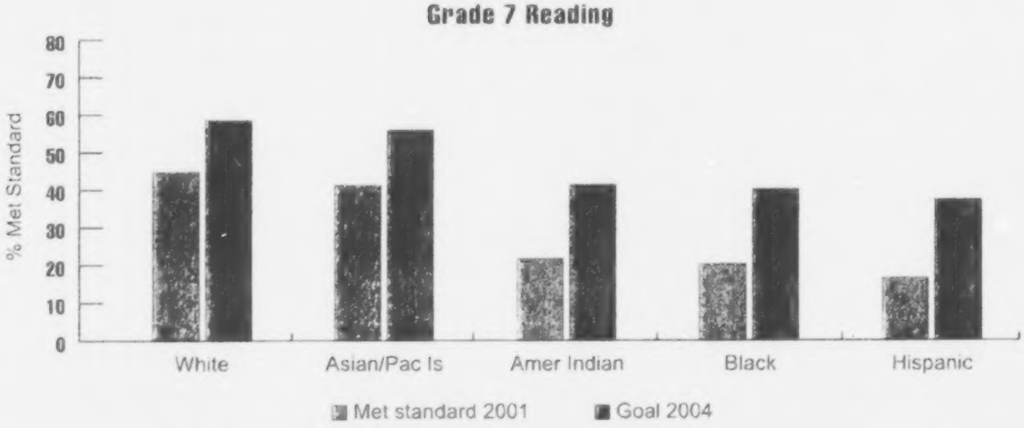
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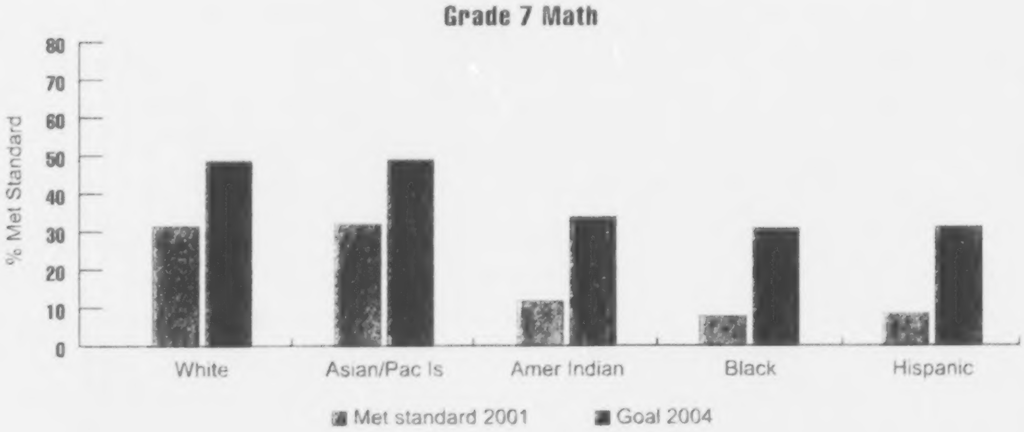
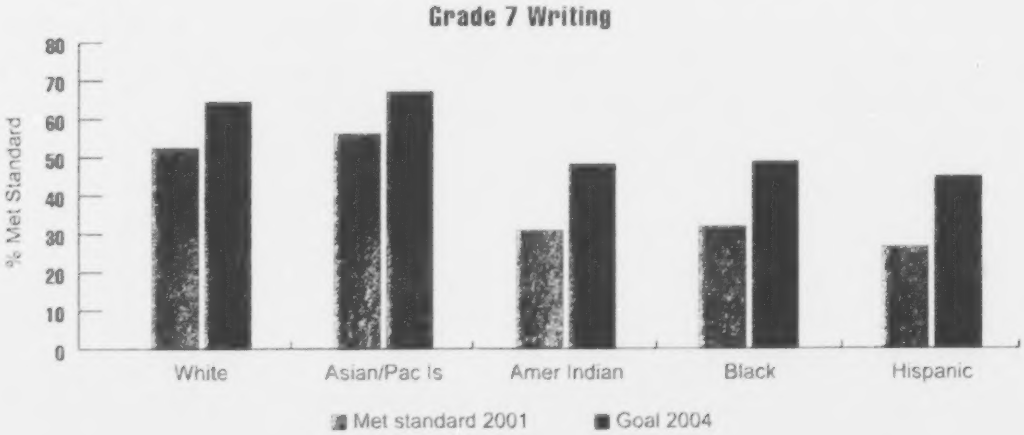
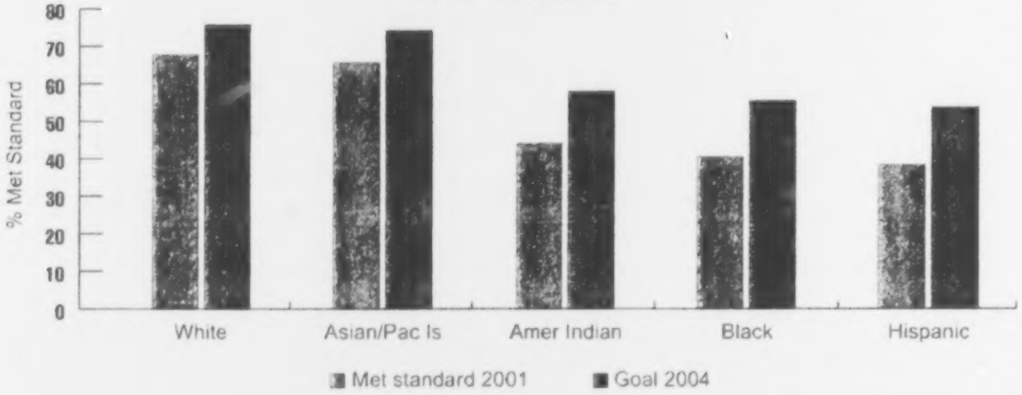
% Met Standard
80
70
60
50
40
30
20
10
0
White
Asian/Pac Is
Amer Indian
Black
Hispanic
▨ Met standard 2001
■ Goal 2004

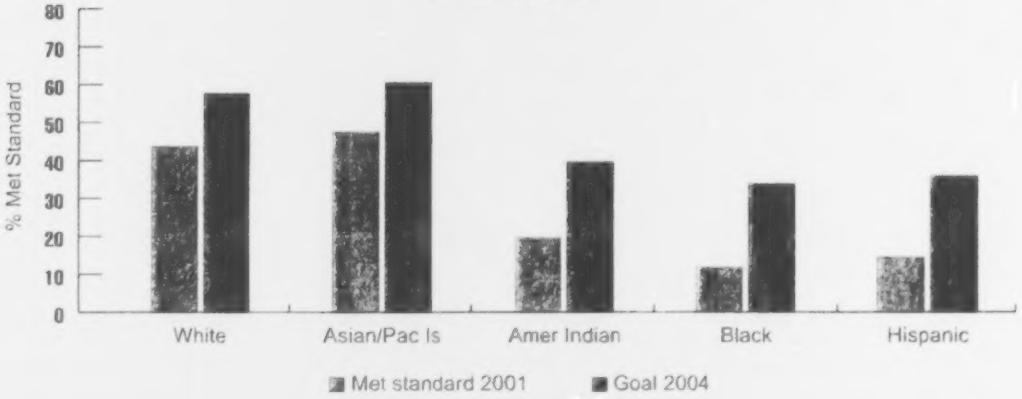

Grade 7 Math
% Met Standard
80
70
60
50
40
30
20
10
0
White
Asian/Pac Is
Amer Indian
Black
Hispanic
▨ Met standard 2001
■ Goal 2004


Grade 7 Writing
% Met Standard
80
70
60
50
40
30
20
10
0
White
Asian/Pac Is
Amer Indian
Black
Hispanic
▨ Met standard 2001
■ Goal 2004

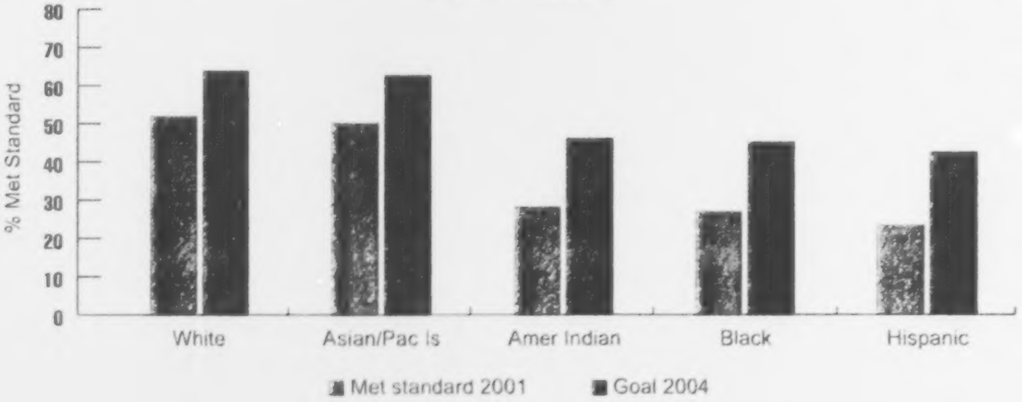
Grade 10 Reading



Grade 10 Math



Grade 10 Writing

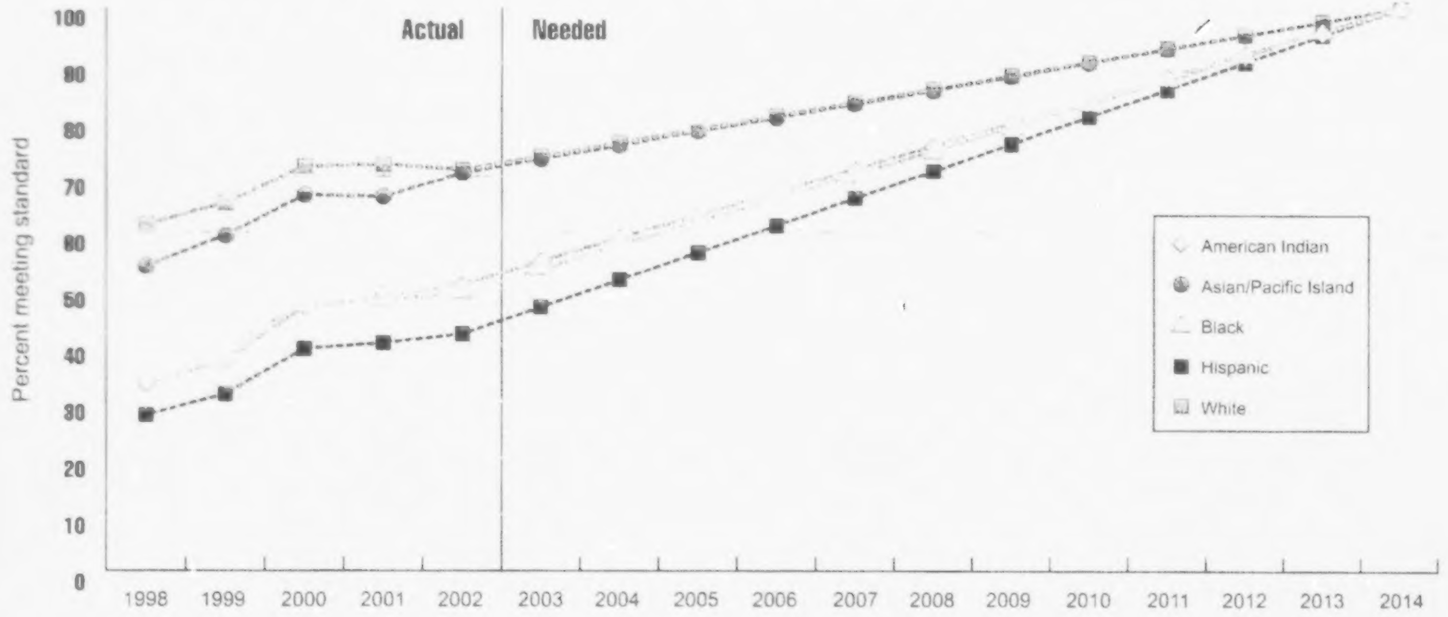


GRADE 4 READING

	Percent Meeting Standard					Yearly Gain Needed	Percent Needed to Meet Standartd											
Group	1998	1999	2000	2001	2002		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amer Indian	33.0	37.3	46.9	48.7	50.9	4.1	55.0	59.1	63.2	67.3	71.4	75.5	79.5	83.6	87.7	91.8	95.9	100.0
Asian/Pac Is	54.1	59.5	66.7	66.4	70.6	2.5	73.1	75.5	78.0	80.4	82.9	85.3	87.8	90.2	92.7	95.1	97.6	100.0
Black	35.4	39.3	47.7	48.2	49.3	4.2	53.5	57.8	62.0	66.2	70.4	74.7	78.9	83.1	87.3	91.6	95.8	100.0
Hispanic	27.6	31.3	39.4	40.4	42.0	4.8	46.8	51.7	56.5	61.3	66.2	71.0	75.8	80.7	85.5	90.3	95.2	100.0
White	61.5	65.3	71.8	72.1	71.2	2.4	73.6	76.0	78.4	80.8	83.2	85.6	88.0	90.4	92.8	95.2	97.6	100.0

Grade 4 Reading

Percent needed to reach 100% by 2014

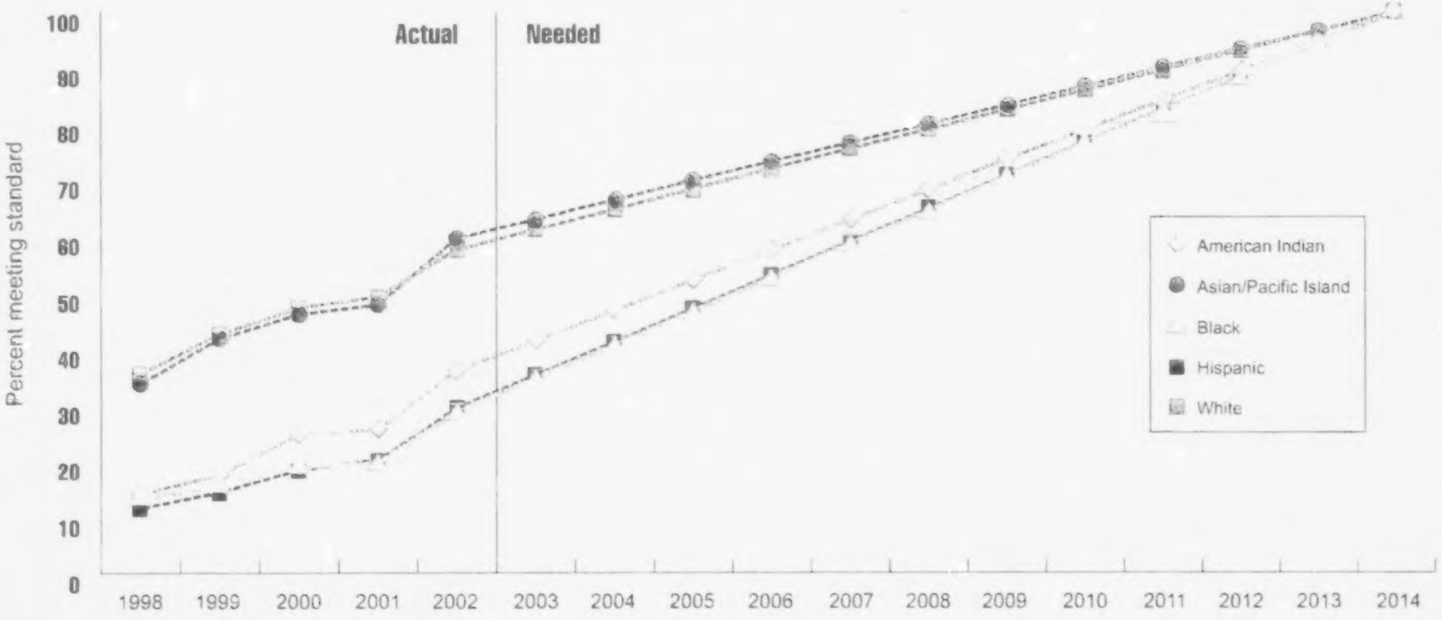


GRADE 4 MATHEMATICS

	Percent Meeting Standard					Yearly Gain Needed	Percent Needed to Meet Standartd											
Group	1998	1999	2000	2001	2002		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amer Indian	13.9	17.4	24.6	25.5	36.0	5.3	41.3	46.7	52.0	57.3	62.7	68.0	73.3	78.7	84.0	89.3	94.7	100.0
Asian/Pac Is	33.6	41.7	46.0	47.7	59.4	3.4	62.8	66.2	69.6	72.9	76.3	79.7	83.1	86.5	89.9	93.2	96.6	100.0
Black	13.0	15.3	18.7	19.5	28.6	6.0	34.6	40.5	46.5	52.4	58.4	64.3	70.3	76.2	82.2	88.1	94.1	100.0
Hispanic	11.4	14.2	18.2	20.0	29.3	5.9	35.2	41.1	47.0	52.9	58.8	64.7	70.5	76.4	82.3	88.2	94.1	100.0
White	35.4	42.5	47.2	49.1	57.4	3.6	61.0	64.5	68.1	71.6	75.2	78.7	82.3	85.8	89.4	92.9	96.5	100.0

Grade 4 Mathematics

Percent needed to reach 100% by 2014

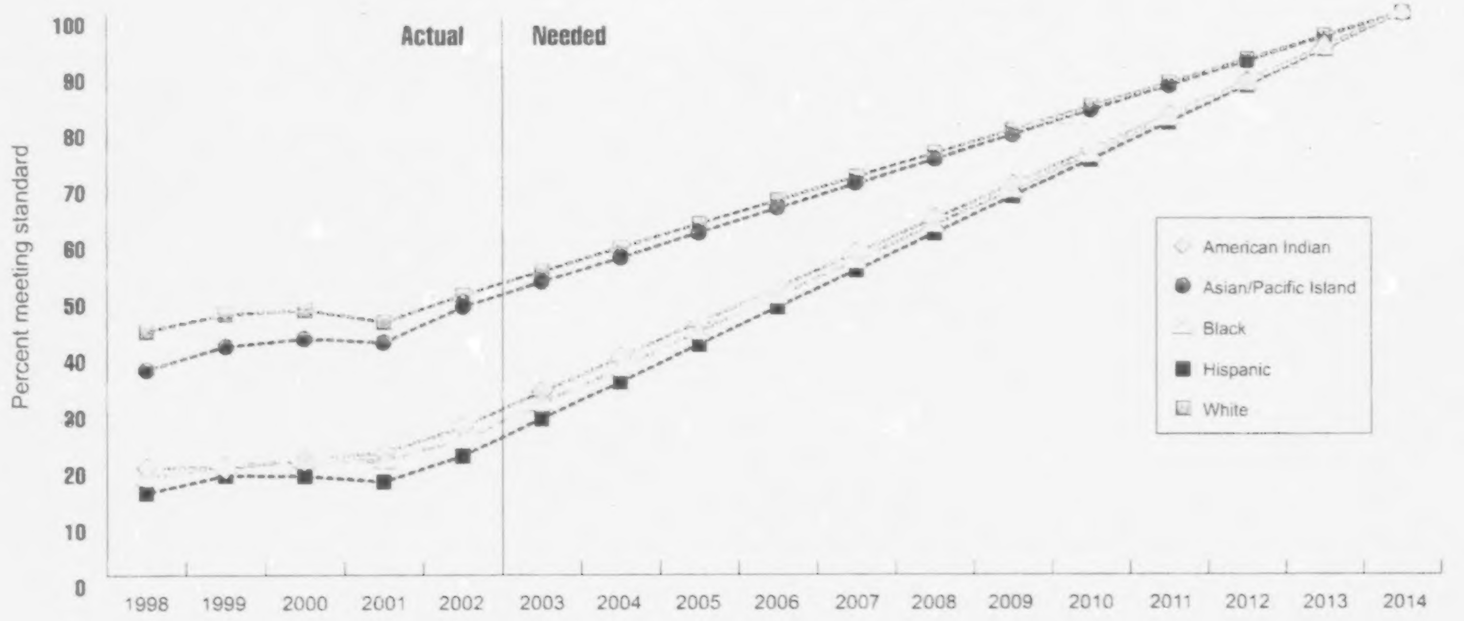


GRADE 7 READING

	Percent Meeting Standard					Yearly Gain	Percent Needed to Meet Standartd											
Group	1998	1999	2000	2001	2002	Needed	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amer Indian	19.1	19.2	20.5	21.8	26.4	6.1	32.5	38.7	44.8	50.9	57.1	63.2	69.3	75.5	81.6	87.7	93.9	100.0
Asian/Pac Is	36.5	40.6	42	41.3	47.6	4.4	52.0	56.3	60.7	65.1	69.4	73.8	78.2	82.5	86.9	91.3	95.6	100.0
Black	17.5	19.5	20.4	20.4	24.2	6.3	30.5	36.8	43.2	49.5	55.8	62.1	68.4	74.7	81.1	87.4	93.7	100.0
Hispanic	14.7	17.8	17.7	16.7	21.2	6.6	27.8	34.3	40.9	47.5	54.0	60.6	67.2	73.7	80.3	86.9	93.4	100.0
White	43.3	46.3	47.1	44.9	49.7	4.2	53.9	58.1	62.3	66.5	70.7	74.9	79.0	83.2	87.4	91.6	95.8	100.0

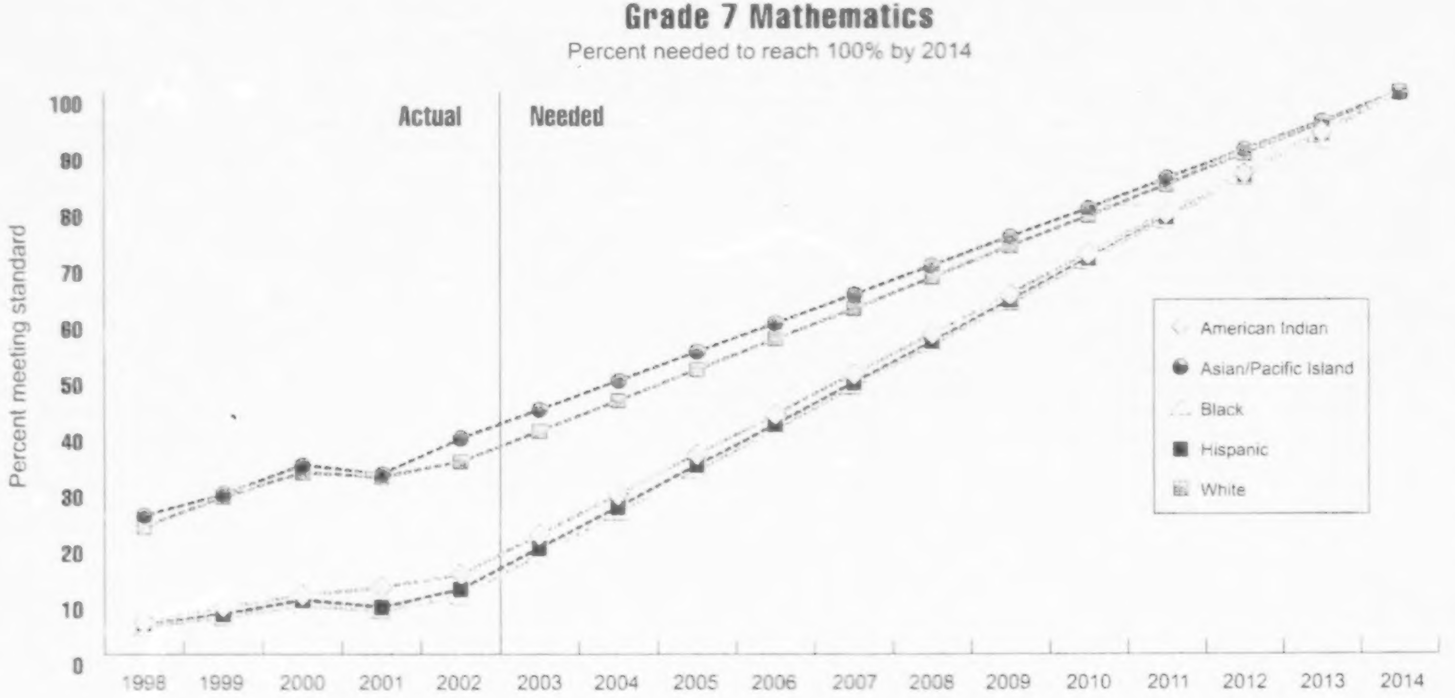
Grade 7 Reading

Percent needed to reach 100% by 2014



GRADE 7 MATHEMATICS

	Percent Meeting Standard					Yearly Gain Needed	Percent Needed to Meet Standartd											
Group	1998	1999	2000	2001	2002		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amer Indian	5.7	8.5	10.6	11.9	14.3	7.1	21.4	28.6	35.7	42.9	50.0	57.2	64.3	71.4	78.6	85.7	92.9	100.0
Asian/Pac Is	24.8	28.5	33.8	32.1	38.6	5.1	43.7	48.8	54.0	59.1	64.2	69.3	74.4	79.5	84.7	89.8	94.9	100.0
Black	4.9	6.8	8.7	7.8	10.3	7.5	17.8	25.3	32.7	40.2	47.7	55.2	62.6	70.1	77.6	85.1	92.5	100.0
Hispanic	5.5	7.2	9.7	8.4	11.6	7.4	19.0	26.3	33.7	41.1	48.4	55.8	63.2	70.5	77.9	85.3	92.6	100.0
White	22.8	28.1	32.4	31.6	34.4	5.5	39.9	45.3	50.8	56.3	61.7	67.2	72.7	78.1	83.6	89.1	94.5	100.0



Grade 7 Mathematics

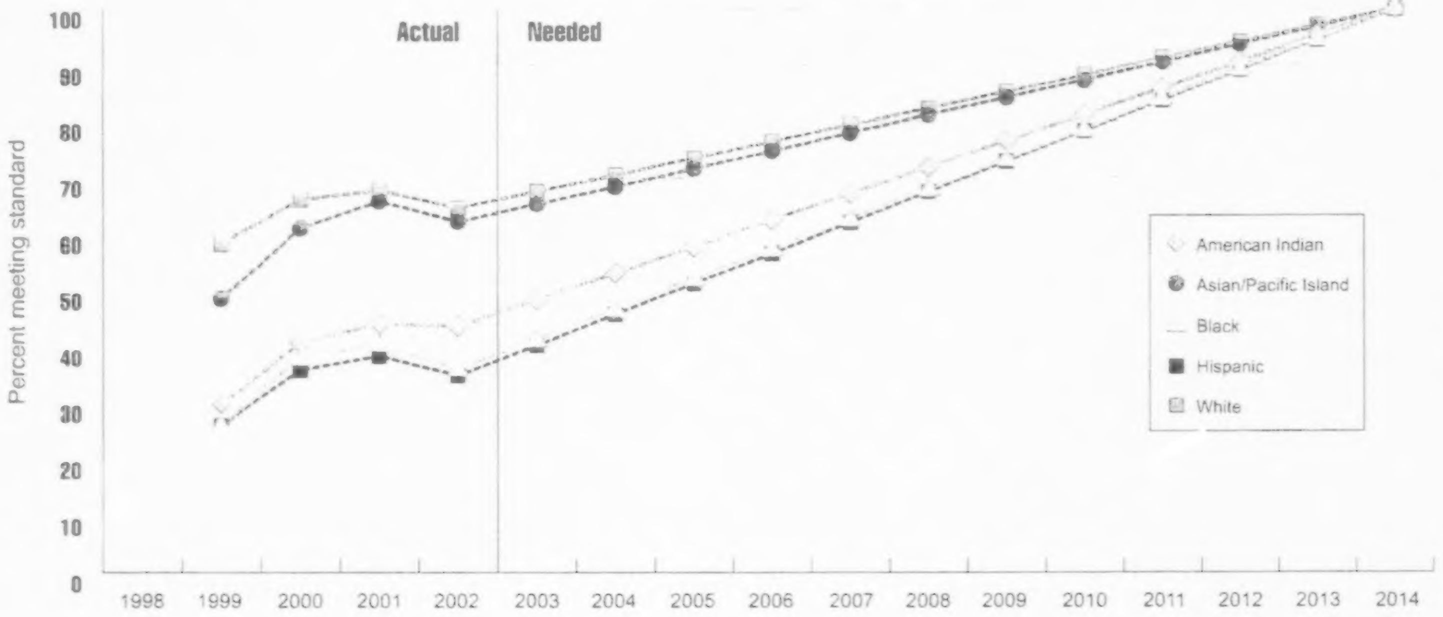
Percent needed to reach 100% by 2014

GRADE 10 READING

	Percent Meeting Standard					Yearly Gain Needed	Percent Needed to Meet Standartd											
Group	1998	1999	2000	2001	2002		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amer Indian	NA	29.6	40.9	44.1	43.7	4.7	48.4	53.1	57.8	62.5	67.2	71.9	76.5	81.2	85.9	90.6	95.3	100.0
Asian/Pac Is	NA	48.5	61.0	65.8	62.1	3.2	65.3	68.4	71.6	74.7	77.9	81.1	84.2	87.4	90.5	93.7	96.8	100.0
Black	NA	26.1	38.2	40.6	36.2	5.3	41.5	46.8	52.2	57.5	62.8	68.1	73.4	78.7	84.1	89.4	94.7	100.0
Hispanic	NA	26.0	35.9	38.4	34.9	5.4	40.3	45.8	51.2	56.6	62.0	67.5	72.9	78.3	83.7	89.2	94.6	100.0
White	NA	58.3	66.1	67.8	64.6	3.0	67.6	70.5	73.5	76.4	79.4	82.3	85.3	88.2	91.2	94.1	97.1	100.0

Grade 10 Reading

Percent needed to reach 100% by 2014

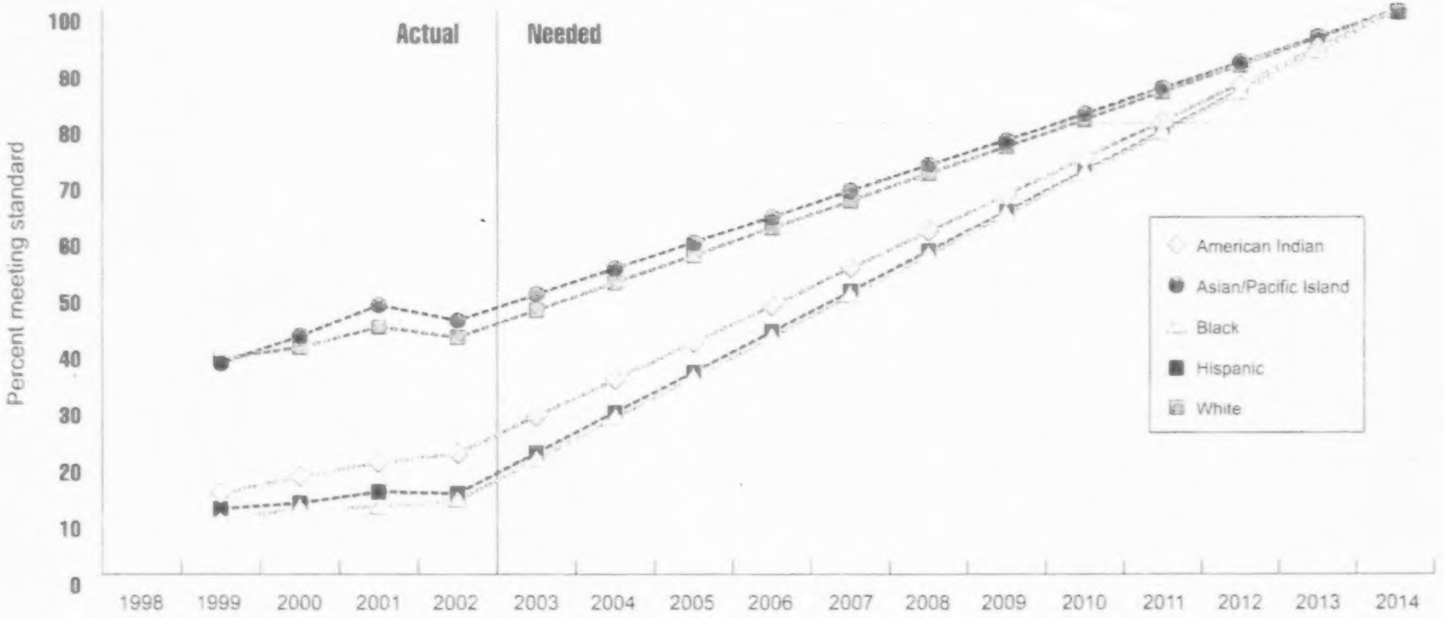


GRADE 10 MATHEMATICS

Group	Percent Meeting Standard					Yearly Gain Needed	Percent Needed to Meet Standartd											
	1998	1999	2000	2001	2002		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amer Indian	NA	14.3	17.3	19.7	21.3	6.6	27.9	34.4	41.0	47.5	54.1	60.7	67.2	73.8	80.3	86.9	93.4	100.0
Asian/Pac Is	NA	37.3	42.1	47.6	44.9	4.6	49.5	54.1	58.7	63.3	67.9	72.5	77.0	81.6	86.2	90.8	95.4	100.0
Black	NA	9.5	11.7	11.9	13.0	7.3	20.3	27.5	34.8	42.0	49.3	56.5	63.8	71.0	78.3	85.5	92.8	100.0
Hispanic	NA	11.6	12.6	14.6	14.3	7.2	21.4	28.6	35.7	42.9	50.0	57.2	64.3	71.4	78.6	85.7	92.9	100.0
White	NA	38.1	40.1	43.7	41.9	4.9	46.7	51.6	56.4	61.3	66.1	71.0	75.8	80.6	85.5	90.3	95.2	100.0

Grade 10 Mathematics

Percent needed to reach 100% by 2014



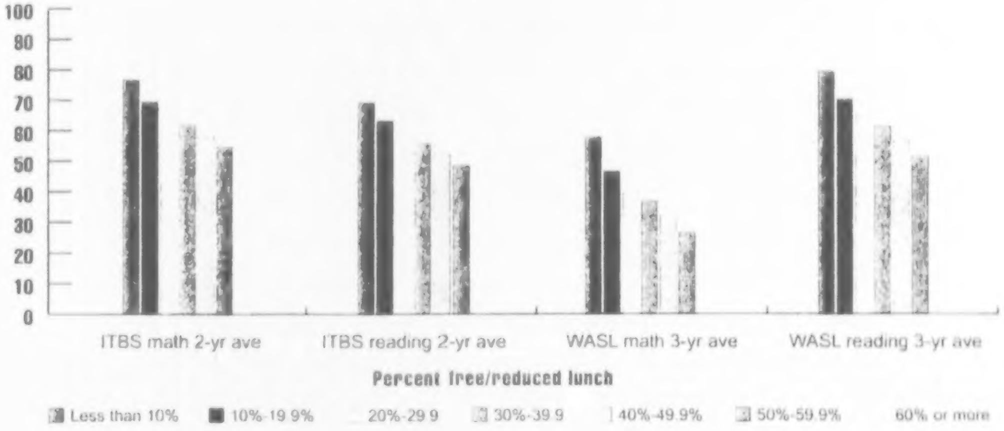
Appendix C

TEST RESULTS BY SOCIOECONOMIC STATUS

ITBS numbers are national percentile ranking; averages are for years 1999 and 2000. WASL numbers represent the percent meeting standard; averages are for 1998-2000.

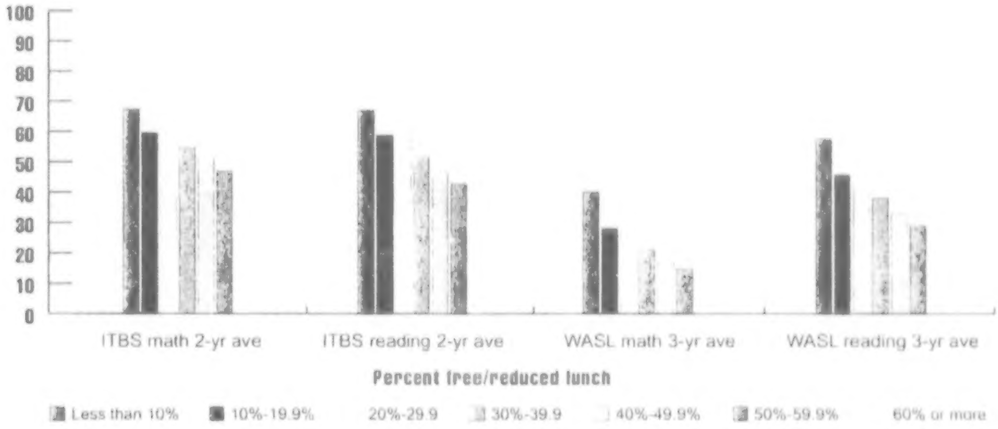
Elementary Grades

	Percent Low-Income (F/R Lunch)						
Outcome Measure	Less than 10%	10%-19.9%	20%-29.9%	30%-39.9%	40%-49.9%	50%-59.9%	60% or more
ITBS math 2-yr ave	76.6	69.5	64.1	61.9	57.9	54.5	43.9
ITBS math 2000	78.1	70.7	65.6	63.1	59.7	56.4	44.6
ITBS reading 2-yr ave	69.2	63.4	59.0	55.8	52.1	48.6	37.3
ITBS reading 2000	69.8	63.5	59.7	56.4	53.1	49.8	37.7
WASL math 3-yr ave	58.0	46.7	39.3	37.0	32.0	26.8	20.2
WASL math 2000	62.9	53.3	45.5	42.3	36.1	32.4	23.8
WASL reading 3-yr ave	79.3	70.3	64.8	61.3	56.6	51.3	40.4
WASL reading 2000	82.8	76.3	70.5	67.7	62.6	57.5	46.6
Ave. percent low-income	*5.6%*	*15.3%*	*25.3%*	*34.5%*	*44.6%*	*54.9%*	*74.5%*



Middle Grades

	Percent Low-Income (F/R Lunch)						
Outcome Measure	Less than 10%	10%-19.9%	20%-29.9%	30%-39.9%	40%-49.9%	50%-59.9%	60% or more
ITBS math 2-yr ave	67.4	59.7	60.0	54.6	51.1	47.1	37.7
ITBS math 2000	67.6	58.7	60.1	53.4	49.1	45.9	37.4
ITBS reading 2-yr ave	67.2	59.1	57.8	51.9	46.6	43.0	32.9
ITBS reading 2000	67.3	59.3	58.8	52.1	46.5	43.2	33.4
WASL math 3-yr ave	40.3	28.2	25.8	21.2	17.3	14.9	8.8
WASL math 2000	46.7	32.6	30.6	24.1	20.9	17.1	10.8
WASL reading 3-yr ave	57.7	46.0	42.7	38.3	32.9	29.0	19.9
WASL reading 2000	59.3	47.4	44.8	38.8	34.9	28.0	20.9
Ave. percent low-income	*5.7%*	*15.4%*	*25.0%*	*34.6%*	*44.1%*	*54.1%*	*72.8%*



Appendix D

NINE CHARACTERISTICS OF HIGH-PERFORMING SCHOOLS

OSPI reviewed more than 20 recent research studies that examined the common characteristics of high performing schools. Some of the studies were reviews of other research that has been conducted over many years on the same topic, while others examined these schools in specific settings and locations, such as high performing elementary schools in a large urban setting. This body of research represents findings from both Washington state and around the nation.

The content of each study was analyzed to determine what characteristics were found most often among high performing schools. Student performance was usually measured in terms of high or dramatically improving scores on standardized tests, often in difficult circumstances such as high levels of poverty. In every case, there was no single factor that accounted for the success or improvement. Instead, the research consistently found that high performing schools tend to have a combination of common characteristics. Some reports found as few as five characteristics, while others found many more. OSPI's analysis of these characteristics narrowed these lists into nine areas.

1. **Clear and Shared Focus** Everybody knows where they are going and why. The focus is on achieving a shared vision, and all understand their role in achieving the vision. The focus and vision are developed from common beliefs and values, creating a consistent direction for all involved.

2. **High Standards and Expectations for All Students** Teachers and staff believe that all students can learn and meet high standards. While recognizing that some students must overcome significant barriers, these obstacles are not seen as insurmountable. Students are offered an ambitious and rigorous course of study.

3. **Effective School Leadership** Effective instructional and administrative leadership is required to implement change processes. Effective leaders are proactive and seek help that is needed. They also nurture an instructional program and school culture conducive to learning and professional growth. Effective leaders can have different styles and roles—teachers and other staff, including those in the district office, often have a leadership role.

4. **High Levels of Collaboration and Communication** There is strong teamwork among teachers across all grades and with other staff. Everybody is involved and connected to each other, including parents and members of the community, to identify problems and work on solutions.

5. **Curriculum, Instruction and Assessment Aligned with Standards** The planned and actual curriculum are aligned with the essential academic learning requirements (EALRs). Research-based teaching strategies and materials are used. Staff understand the role of classroom and state assessments, what the assessments measure, and how student work is evaluated.

6. **Frequent Monitoring of Learning and Teaching** A steady cycle of different assessments identify students who need help. More support and instructional time is provided, either during the school day or outside normal school hours, to students who need more help. Teaching is adjusted based on frequent monitoring of student progress and needs. Assessment results are used to focus and improve instructional programs.

7. **Focused Professional Development** A strong emphasis is placed on training staff in areas of most need. Feedback from learning and teaching focuses extensive and ongoing professional development. The support is also aligned with the school or district vision and objectives.

8. **Supportive Learning Environment** The school has a safe, civil, healthy and intellectually stimulating learning environment. Students feel respected and connected with the staff and are engaged in learning. Instruction is personalized and small learning environments increase student contact with teachers.

9. **High Levels of Family and Community Involvement** There is a sense that all have a responsibility to educate students, not just the teachers and staff in schools. Parents, businesses, social service agencies, and community colleges/universities all play a vital role in this effort.

For more information on these characteristics and research that has focused more narrowly on each of these nine areas, refer to the individual studies and documents themselves. These are listed on OSPI's research website (http://www.k12.wa.us/Research/).

Appendix E

CURRENT ACTIVITIES TO ADDRESS THE ACHIEVEMENT GAP

Washington Actions Underway

Many different groups are focusing on issues related to the achievement gap in Washington state. Besides the research efforts noted in this document, the following is a sample of the activities that have been completed, are underway, or are planned by various Washington stakeholders:

- **OSPI** has made the achievement gap a priority and has set goals for eliminating the achievement gap. A task force has been convened to plan and implement activities related to achievement gap issues. Publishing this document is part of this effort.
- **Academic Achievement and Accountability Commission** (A+ Commission) released a research study on achievement gap in September 2002, "Closing the Achievement Gap in Washington State. Holding Schools Accountable for Equity."
- The **Center for Educational Leadership** at the University of Washington is focusing its efforts on the achievement gap.
- **Washington Education Association** has convened a task force to study issues related to the achievement gap.
- **Washington Association of School Administrators** published a resource of district programs and activities in 2002, "Best Practices for Closing the Achievement Gap through Shared Leadership." The achievement gap was a theme for its summer conference.
- **Washington State School Directors Association** has completed an 18-month study about the achievement gap that has recommendations for action by school directors.
- **Washington Educational Research Association** will devote its March 2003 research conference to the theme of closing the achievement gap.
- **Federal Way School District** created an Office of Equity and Achievement after examining the performance of students using four criteria: academic performance, advanced program enrollment, special needs programs enrollment, and disciplinary actions. The new program will work to improve achievement of African American, Hispanic, and Native American students. Details of the plan and timelines as well as other district information are available at http://www.fwsd.wednet.edu/info/press/0102/020813gap.html.
- **Seattle Public Schools** has set a goal to eliminate the achievement gap by 2005. All schools are developing detailed plans to meet the goal. A "Disproportionality Action Committee" has been meeting since August 2001 with final recommendations submitted in June 2002.
- **The Washington Multi-Ethnic Think Tank** released a position statement in June 2001, "Call to Action: Mandating an Equitable and Culturally Competent Education for All Students in Washington State."

NAACP Call for Action in Education

At its May 2002 Education Summit, the National Association for the Advancement of Colored People (NAACP)[3] renewed its call to end racial disparities in the nation's public schools and institutions of higher education. It issued a Call for Action to address issues in areas in which the NAACP has identified consistent racial disparities. The 40-page document includes descriptions of inequalities and disparities as well as recommendations to address the issues. The document has the following sections:

Section I	Increasing Resource Equity
Section II	Improving Teacher Quality
Section III	Increasing Access to Early Childhood Programs
Section IV	Increasing Access to a College-Bound Curriculum
Section V	Creating Smaller Class Sizes
Section VI	Closing the Digital Divide
Section VII	High-Stakes Testing
Section VIII	Reducing the Dropout Rate
Section IX	Increasing Parental Involvement
Section X	Addressing Special Education and the Overrepresentation and Underservicing of Minority Children
Section XI	Eliminating Racial Disparities in the Suspension and Expulsion of Students
Section XII	Addressing Resegregation Trends

The NACCP requested that institutions establish plans for closing the racial disparities in achievement by at least 50% over the next five years. It urged institutions to take immediate action and collaborate with others at the local, state and national levels to close the achievement gap. The full document is available at http://www.naacp.org/work/education/educalltoactn2.pdf.

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[3] Founded in 1909, the NAACP is the nation's oldest and largest civil rights organization. Its half-million adult and youth members throughout the United States and the world are advocates for civil rights in their communitites, conducting voter mobilization and monitoring equal opportunity in the public and private sectors.

Appendix F

CASE STUDIES RELATED TO CLOSING THE ACHIEVEMENT GAP

Case studies of the experiences of schools and districts that are making progress in closing the achievement gap provide evidence that the gap can be eliminated through the concerted efforts of all stakeholders. Educators can glean practical strategies from the stories of others who are engaged in the enterprise. Below is a short annotated list of schools and districts that are making strides.

Closing the Achievement Gap: No Excuses. Patricia Davenport & Gerald Anderson, American Productivity & Quality Center (2002).

> Brazosport School District in Brazoport, Texas, has used the principles of total quality management, mastery learning, and the effective schools correlates as a foundation for its continuous improvement model. In 10 years, the district has effectively reduced the achievement gap for all students according to the state assessment. Percentages of students passing the state assessment (TAAS) for reading in 2000 were: all students 97%, white students 98%, African American 94%, Hispanic 94%, economically disadvantaged 94%. This book chronicles the district's experiences and explains the plan–do–check–act instructional cycle.

Continuous Improvement in Community District #2, New York City. Richard Elmore & Deanna Burney. (1998, December). University of Pittsburgh, Learning Research and Development Center, High Performance Learning Communities Project.

> The Community School District #2 in New York City has engaged in continuous instructional improvement for the last fifteen years. Elmore has written several articles describing the district's work under former Superintendent Anthony Alvarado. The district's strategy focused on extensive and intensive professional development to improve instruction in the schools by building "scholarly communities." The professional development was highly focused on literacy and mathematics and used the knowledge and skills of external and internal mentors. After several years of honing the professional expertise for high quality instruction, the district then focused its attention to student performance, particularly for the "hardest-to-teach." Achievement has improved for all students. The 2000-2001 annual district report gives evidence of the gains. "Since 1989, the district has moved from tenth place in reading to second out of the 32 community schools in New York City (73.2% are reading at proficiency levels), from fifth place in math to second (61.5% are performing at proficiency levels)." And the level 1, weakest category, was reduced from 20.7% to 5%.

Improving Student Performance in Title I Schools: Spokane School District, Washington.
Case study included in forthcoming OSPI Title I Report.

The Spokane School District in eastern Washington has developed and successfully implemented a noteworthy approach for improving student performance in its Title I elementary schools. This approach has resulted in many of the students in the highest-poverty schools performing at much higher levels than those in similar schools in other districts. OSPI's analyses of high-performing schools with above average poverty levels typically identify an unusually large number of Spokane schools. Over the past seven years, five schools in Spokane have been recognized by the federal Distinguished Schools program, an honor given to only about 2% of Title I schools nationally. Although the district had about 46 percent of its students receiving a free or reduced-price lunch in 2001 (the state average was 33%), its elementary schools perform above the state average in every WASL subject. In many cases, the highest poverty schools outperform the state as a whole by a wide margin.

Spokane's school improvement approach includes the following primary elements, which are discussed below:

- Embedded professional development
- School-based facilitators
- Use of assessment data
- Principal leadership
- Active learning
- Coordinated central office support.

Embedded Professional Development The defining element of the Spokane approach is embedded professional development. Spokane has implemented a model of professional development that reflects the standards of quality staff development. Teachers increase their knowledge and hone their skills through ongoing, school-based mentoring, demonstration lessons, practice, reflection, and collegial support. In a climate of collaboration, teachers voluntarily engage in professional development with the goal of improving student learning.

School-Based Facilitators Facilitators are the essential element to ensure the success of the embedded professional development model. They serve as coaches who assist teachers in improving their instructional practices. The characteristics of the individual facilitators are critical to their acceptance within the schools. The selection and training of the facilitators are important. Prospective facilitators are screened and selected through an extensive interview process to assure they have the disposition, knowledge, skills, and credibility for the role. Enthusiasm for the role and a sense of moral purpose and mission are also qualifying attributes. Central administration and principals have the responsibility for the selection process. Facilitators are trained in the theory and practice of adult learning and are grounded in the literature on effective classroom practices.

Use of Assessment Data Assessment data serve to guide teacher decisions and to motivate improvement in student learning. Teachers are expected to improve student performance on district and state standardized assessments. They are also expected to engage students "where they are" and to move them forward. In Spokane, district and classroom-based assessments are administered in reading and math at least three times during the school year and twice a year in writing. Teachers must learn to use assessment data to diagnose students' current skills to determine what they need to learn; they also must learn and use multiple teaching strategies to respond to students' needs to assure that learning occurs. Facilitators are available to assist teachers, on a voluntary basis, in meeting these challenges.

Principal Leadership In the high performing Title I schools, principals lead through focusing on data and insisting on their use for the day-to-day instructional decisions. Principals also develop and identify a rich array of instructional strategies that teachers can use to bolster student performance. Although facilitators may help to identify instructional strategies, principals coordinate school activities and create a school environment that encourages and supports the use of these practices. In the most effective schools, principals encourage and promote the work of the facilitators.

Active Learning Teachers and schools have embraced a teaching philosophy based on the principle of student engagement, or active learning, although there is broad latitude in selecting and interpreting teaching strategies. An extensive amount of class time is devoted to students working together on appropriate tasks, often in small groups of five or six. Teachers believe that teaching should be focused on specific learning targets and that students should be actively engaged in their learning. In other words, teaching should be "intentional." This child-centeredness is basic to the Spokane approach.

Coordinated Central Office Support The district office provides centralized support to implement and sustain the facilitator-school change model. This centralized effort includes selecting and training facilitators, providing and interpreting student assessment data, offering training in teaching strategies that promote active learning, and building the capacity of facilitators to engage and support adult learners.

Other aspects of the Spokane change process also appear important. These include the positive approach taken toward the WASL, clear school accountability, high expectations for adults and students, inclusion, teachers as staff developers, balanced literacy approaches, changes in the use of instructional assistants, parental involvement, and importance of using appropriate teaching materials.

The Spokane approach is achieving success. There is no one best way to change schools, and for a variety of reasons, the district's model cannot be implemented quickly because it is built on the premise of building capacity with facilitators and for classroom teachers. But following the critical elements of the Spokane "recipe" for success seems likely to yield positive results elsewhere.

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